

THE SOUTHERN PLANTER AND FARMER.

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Improved Breeds.

We call the attention of our readers to Dr. Woods' advertisement of sheep and hogs. His efforts to improve the different breeds of stock are well known, having made heavy expenditures in procuring the best to be had, not only in our country, but in Enrope also. Sheep and hogs he has made specialties of. His fine South Down Buck, which took the first prize at our State Fair in 1870, had previously taken the first prize at the New York State Fair—and his magnificent yearling Cotswold Buck, "Viceroy 2d," which took the first prize at our late State Fair, had already taken four first prizes at different fairs in New England, and one in New York. Judges, admitted competent, say that no finer specimens of these breeds have ever been exhibited at our fair.

A good many of his improved pigs were on exhibition, and were pronounced splendid specimens of the hog kind.

Dr. Woods' prices are certainly reasonable, considering the character and blood of his stock, and all in want of such stock would do well to put themselves in communication with the Doctor. His address is "Ivy Depot, Albemarle county, Va."

Charlottesville Woolen Mills.

There is at Charlottesville one of the finest woolen factories in this country, or to be more specific, we would say that at the establishment referred to, woolen goods are made which will compare favorably with the best produced elsewhere. The colors are excellent and durable. We are gratified to learn that the business of the concern is steadily increasing. Merchants throughout the State, and beyond it, who deal in woolen goods, should send for sample cards of the Charlottesville fabrics, which are conveniently arranged to display the goods. The establishment is kept before the public by advertisement in each issue of the Whig. A full line of the goods manufactured were on exhibition at the recent State Fair, and attracted the notice of many visitors. The committee submitted the following report:

"The committee would heartily recommend the granting of diplomas to the Charlottesville Woolen Mills for eight pieces diagonal and doeskin cassimeres, ten pieces herring-bone kerseys and satinets, and one piece of merino flannel, all of which we find very superior, and commend these goods to the people of Virginia and the South as worthy of their attention and patronage."—Richmond Whig.

Deserved Reward.

Now that the season for agricultural fairs has passed, our enterprising townsmen, Messrs. Porter Blanchard's Sons, are gathering their annual harvest of official acknowledgments of the superior merits, of their churn, in the shape of medals, diplomas, etc., which have been awarded them all over the country, wherever their churns have been on exhibition in competition with other kinds. The best dairymen in the country pay them the highest possible compliment of using them in their own dairies; and it is very generally conceded that, for simplicity, effectiveness, durability, cheapness, and beauty, they are "the best." A most tasteful diploma from St. Louis, and a beautiful bronze medal from the great Industrial Exposition at Cincinnati, may be seen on exhibition in the window of Robinson & Tilton.—Petersburg paper.

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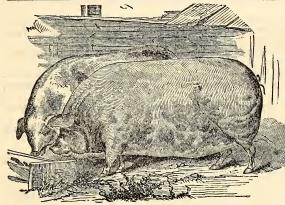
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dec-3m

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dec-1m

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On and after SATURDAY, July 1, 1871, two daily passenger trains will run between WASHINGTON and LYNCHBURG, effecting double daily connections through between NEW YORK and NEW ORLEANS. At Gordonsville connection is made by mail train with the Chesapeake and Ohio Railroad daily, (Sunday excepted,) to Richmond, Staunton, and the Virginia Springs; at Lynchburg with Atlantic, Mississippi and Ohio Railroad for the West and Southwest, and at Washington for the North and Northwest.

Leave Washington daily at 6:55 a.m. and 5:30 p.m., and Alexandria at 8:00 a.

m. and 6:50 p. m., arriving at Lynchburg at 5:05 p. m. and 4 a. m.

Leave Lynchburg at 9 a. m. and 10 p. m., arrive at Alexandria at 5:25 p. m. and

6:25 a. m., and at Washington at 6:15 p. m. and 7:25 a. m.

For MANASSAS DIVISION leave Washington daily (excepting Sunday) with main line train, at 6:55 a m., and Alexandria at 8 a. m. Leave Manassas Junction at 9:30 a. m.; pass Strasburg at 12:45 p. m., and arrive at Harrisonburg at 3:40 p. m., connecting with Harmon & Co's Stage Lines to Staunton, Rawley Springs, &c., &c.

Eastward, leave Harrisonburg at 9:45 a.m.; pass Strasburg at 12:45 a.m., arrive at Manassas Junction at 4:00 p. m., connecting with main line through to Wash-

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Good connections, by comfortable coaches, are made to Fairfax C. H. from Fairfax Station; to Middleburg from Plains, and to Upperville from Piedmont.

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Also cars through between Baltimore and Lynchburg, avoiding the inconvenience of transfer in Washington.

Through tickets and baggage checked to all prominent points.

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july—tf

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MAIL TRAIN will run DAILY between Richmond and Staunton (except Sunday, petween Gordonsville and Staunton). Leave Richmond at 8 A. M.; arrive at Staunton at 4:28 P. M. Leave Staunton at 8:59 A. M., and arrive at Richmond at 4.50 P. M., making close connections at Gordonsville and Charlottesville with Orange, Alexandria and Manassas railroad trains for Alexandria, Washington, Baltimore, Philadelphia, New York, Boston, &c.; also for Lynchburg, Knoxville, Chattanooga, Memphis, New Orleans, Montgomery, Mobile, &c. This train will run TRI-WEEKLY between Staunton and White Sulphur, on TUESDAY, THURSDAY, and SATURDAY, viz.: Leave White Sulphur at 3:30 A. M., and arrive at Staunton at 8:39 A. M; leave Staunton at 4:33 P. M., and arrive at White Sulphur at 10 P. M.

Going West, passengers dine at Gordonsville and sup at Covington. Going East,

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At Millboro' for Bath Alum Springs, 10 miles; and Warm Springs, 15 miles. At White Sulphur Springs for Lewisburg, 9 miles; and Charleston, 109 miles. THROUGH TICKETS issued to all points North, West and Southwest.

JAMES F. NETHERLAND,

jan—1t

General Ticket Agent.

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Corner Main and Third Streets,

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Is only Prepared by JOHN W. RISON, Druggist, and is warranted to cure any Cough, if not too long standing. Price, 50 cents.

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oct-1y

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The patient is not rendered unconscious, but feels no pain.

Delicate ladies and little children inhale this Gas with impunity. It is perfectly safe and pleasant, as the following testimonials will show:

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[From the Professor of Natural Sciences at Richmond College.]

"I have inhaled Nitrous Oxide, as prepared by Dr. Geo. B. Steel, who also, at my request, administered it to a member of my family, from whose mouth several teeth were extracted without pain, and without any subsequent unpleasant effects. I consider its inhalation perfectly safe, while its effects are altogether pleasurable. I recommend its use with entire confidence. "B. PURYEAR,

"Richmond College, May 4, 1869."

[From Horace Ford, Esq.]

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[From John P. Snead, Esq., Fife's Post Office, Goochland.]

"A member of my family, to whom Dr. Steel administered his 'Nitrous Oxide Gas,' and extracted a number of teeth in a very short time without pain, gladly and unhesitatingly recommends its use to sufferers from aching teeth; and from personal experience, pronounces it one of the greates: of blessings."

I also perform all other operations, pertaining to the science of Dentistry, in the most satisfactory manner.

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Correspondence desired with those who contemplate planting orchards, and to those who wish to plant largely, great inducements will be offered. All persons interested in fruit culture are respectfully invited to visit the Nurseries.

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Close connections made at Norfolk for Baltimore, Philadelphia, and New York, via Baltimore Steam Packet Company. At Petersburg with the Richmond and Petersburg, and Petersburg and Weldon Railroads. At Burkville with the Richmond and Danville Railroads for Richmond and Danville, Greensboro', N. C., Columbia, S. C., &c. At Lynchburg with the Orange, Alexandria and Manassas Railroad, for Charlottesvile, Staunton, and for Northern cities, and at Bristol, Tenn., with E. T. V. & G. Railroads, for all points West, South and Southwest. This route offers every facility to the traveling public. Baggage checked through, and time and rates as good as by any other route.

First class, second class, and emigrant tickets on sale for all prominent points, among which are

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For further information apply to Col. Frank Huger, M. T. Va & Tenn. Division, Lynchburg, Va.; Capt. E. A. Goodwyn, M. T., South Side Division, Petersburg, Va.; Capt. J. D. Proctor, M. T., Norfolk, Va., or address

W. E. M. WORD,

General Passenger Agent, Fincastle or Lynchburg, Va. Tickets for sale by Capt. Richard F. Walker, No. 1325 Main street, Richmond, Va. july-6m.

THE SOUTHERN

PLANTER & FARMER,

DEVOTED TO

Agriculture, Horticulture and the Mining, Mechanic and Household Arts.

Agriculture is the nursing mother of the Arts.—Xenophon.
Tillage and Pasturage are the two breasts of the State.—Sully.

JOHN W. RISON.

EDITOR AND PROPRIETOR.

New Series.

RICHMOND, VA., DECEMBER, 1871.

Vol. V---No. 12.

Agricultural Department.

Review of the November Number.

BY OLD IRON.

Another short month has written its history on the tablet of Time, and again we betake ourselves to the task of reviewing the bright pages of the excellent *Planter and Farmer*. We notice some judicious changes in the arrangement, and observe that it is chock full of good and practical matter for the men who carry the nation upon their shoulders. The journal has evidently fallen into good hands, and we doubt not that it will become more and more worthy of the best patronage of the planter and farmer everywhere. Rally, ye toilers, to its support.

Necessity of Improving our Poor Lands.—The writer has struck the right key. Our lands must be improved. And we agree with "South-sider" that with a little energy and enterprise it may be done readily and cheaply. We differ, however, as to the mode. Clover will not do as a general thing. The lands are too poor for clover; and few of us have the means to purchase all—or half—the manure that we need. "South-sider" is wide of the mark when he says we have. We admit, however, that if we have not the means to buy manures, with a little more "honest toil and industry" we

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might manufacture much more than we do. We think the Southern field pea offers the cheapest means of improving our poor lands. They will grow at once on poor land, and two crops may be turned in annually. We wish all southsiders, and northsiders, too, would give them a fair trial. For the great majority of farms we think peas decidedly the best. Of course where clover can be grown to advantage we would recommend its use. "South-sider" makes some excellent hits, especially when he speaks of the young men "wasting their lives in idleness" in miserable country stores. Some might think that the remark "We have the finest climate and best country in the world," is not altogether correct; and we suppose that there are many other "fine climates and good countries" besides ours.

Agricultural Associations.—These, beyond a doubt, are doing much good in spreading information among farmers, and are thus leading to the development and progress of a better soil-culture. We would like to see them grow in numbers and usefulness. We of the South need them especially, and it does appear that they are multiplying. "The Walker Club" and "King George Club" are two in Virginia that we had not heard of before. We have heard of other new organizations lately. Let the good work go on.

We think the Walker Club would have acted wiser to have resolved to manufacture their own fertilizers. If they have surplus capital, better lay it out in fruit trees, improved stock, or better buildings and implements.

The resolution of the National Agricultural Congress in relation to meteorological and crop reports, we hope will be carried forward to complete success. It is a matter of great importance to the science of agriculture.

"Thomas" reversed, who tells about the Piedmont society, has made some valuable suggestions. We repeat what he says: "Every county should be represented in the *Planter and Farmer* that we may all know what is being done throughout the State." We hope his call will be heeded.

Roots—Fall Apples—Virginia.—"Pomona" speaks well on these subjects, and we hope his words will have effect. Those who have not late varieties of apples should not forget now to put out some. Those who failed to sow seed for root crops at the proper season, we suppose, must console themselves with a promise to do better in the future. If, however, they have sheep to winter, they may yet do a little for them. Let them sow at once a field to mustard. It will grow a little all through the winter, and in February will come out and cover the land, and afford good pasturage for the flocks.

Diseases of Poultry.—There is something radically wrong in the management of poultry, and until we study thoroughly how to control the diseases, we fear that poultry-raising will not be found a profitable business. When our fowls are dying by the hundred, and we refer to our pretentious books for light, it does not put us in the best humor with the writers of these books to find, after trial, that all their remedies fail. We feel that we have been wronged by having to pay a big price for mere printer's stuff. A correct, practical and safe guide in the management of poultry, both in health and disease, is yet a desideratum.

Bees.—Mr. Polk yet keeps a vigilant eye to the apiary. This is an interesting and, no doubt, profitable business, especially suited to females. We want some of Mr. Polk's Italians next spring.

Better Care rather than more Cows.—These words should be adopted as the motto, and written over the door-way of every dairy in the land. It is the finger-board which points unmistakably to the road of success. The remarks of the writer under this head are as true and incontrovertible as the laws of mathematics. But will they be heeded by our dairymen.

Management of Dairy Cows.—This article speaks the same language as the above. Read and ponder both. The three other paragraphs of the dairy department are good, especially the six rules about milking.

Building Paper.—This article should not be passed by with a careless perusal. Everything that tends to improve our dwellings and cheapen the cost of their construction, should receive attention. We want the Virginia Cane-Fibre Company to advertise in this journal. Old Iron wants some of the paper.

Farmers, do your own Repairing.—And why not do your own building, too? We subscribe to what the writer says: Let the mechanics growl, if they like, we would be an independent farmer.

We wonder what the "specific gravity test for potatoes" is worth in practice. Are we to plunge every potato of a hundred bushels successively in salt-water, to see if it comes up to the standard, or rather, goes down a good potato?

Household Department.—We regret to find this department filled entirely with selected matter. Why will not the ladies write for this department?

Editorial Department.—This is interesting, and proclaims a desire to keep the reader posted, and also shows industry. We want to see the Editor throw his whole energy into the Southern Planter and Farmer. As to H. W. C.'s query about wire grass, we would say

that the idea of killing a field of wire grass, is, practically speaking, absurd. No ordinary, or extraordinary process has ever been devised to rid a field of this pest, during the period of cultivation.

Nor is it necessary to "give up a farm" on account of it. It is tough to work in, but we of Eastern Virginia don't mind it much.

Our very best lands are thickly set in it. The peanut men break the land shallow, and then drag the field with a drag or harrow, or may be a wheat rake, drawing the grass up into long beds. They then shake it out from the dirt with pitchforks, pile it in little heaps, and the next day burn. Thus they destroy much of it; but what is left in the ground continues to grow. This must be the case, for no one can take the time to remove every sprig of it from a large field. Letting the land grow up into a forest of pine bushes for ten or fifteen years will kill it all. Some think that our rich river lands are kept up in a great measure by this grass. It affords excellent grazing for stock.

Selected Articles.—The Editor has made pretty free use of his exchanges in this No., but the selections are judicious and well worth the space they occupy. Read them all.

Farmers Banking and Co-operative Company.—We notice in the advertising pages some sort of a new scheme for co-operation among farmers. If it proposes to really help the farmer we want to know more of it. Will not a "Henrico Farmer" explain all about it, or send us the prospectus, etc., of which he speaks? We are satisfied that combination is the word for farmers now, and we are pleased to see the matter so extensively agitated.

And now, dear Planter and Farmer, go forth on your mission to to instruct and cheer the farmer in his humble, and at the same time noble toil. Go into every nook and corner of our broad and beautiful State. Tell the toilers of The Better Way of rural life; that the old systems of the past that are ruinous must fall, and that the systems that are good can be made better; tell them to take earnnestly hold with their own hands, and push the car of progress onward; that self-help is the best of all help; encourage them, dear monitor, to join the Try Company, that is being silently, though no less surely, organized to build up and brighten the "waste places" of our dear old Virginia. Tell them at the same time to work with skill; tell them to work small farms, and to practice the most rigid economy; that nothing should be wasted, from the crumbs that fall from their tables, to the mighty oak of the forest torn up by the whirlwind, or the rocks that form our beautiful mountains. Do this, and your mission will be to bless and to save.

How to Kill Wire Grass.

Mr. Editor,—I notice in the November No. of the Southern Planter and Farmer the following inquiry by H. W. C., Halifax county: "Will not you, or some of your many readers, give us some plan for killing wire grass?"

In my observation and experience, I have never found any specific "kill all" for weeds except "elbow grease," or, in other words, extermination by mechanical means. No specific applied to wire grass will destroy it so surely and economically as to root it out entirely and burn, or otherwise destroy it. I have in mind a field overrun with wire grass so thick that it took a very strong team of four horses to break and plow it; and so bad, after being plowed, harrowed and prepared the best possible, that it could be scarcely cultivated, which in one season was cleared of wire grass, so that ever after there has been no trouble from it, and scarcely a root was ever after seen there. In the spring it was plowed as well as could be; then a harrow and cultivator were used to tear the roots out; these were collected and carried off the field, and all got out that it was possible. The field was then cross-plowed, and the harrowing and cultivating repeated, and all the roots carted off as before. These processes were repeated till all the roots were cleared off that came to the surface. In July the field was sowed with buckwheat, after being plowed some three times, and each time the roots picked off, and a heavy crop was had; after which the plowing, harrowing and cultivating and gathering the roots were repeated. Subsequently there was no further trouble with wire grass. The same field was kept under culture three or four years, and any stray roots destroyed as found, but very few were found at all. The peculiarity of wire grass is, that it increases from underground root stocks, and the more you cut it to pieces the more there is of it, unless taken off the ground; and it is very tenacious of life. W. H. W.

Hartford county, Conn.

Practical Farming. - No. 1.

There is nothing so essential to success in agricultural pursuits as practical good sense, united with tact and aptness for practical application. Scientific acquirements are valueless if they are not put into practice. It is a great deal easier to talk and write than it is to act. Great talkers are generally poor actors, and it is said that some of our best agricultural writers are the poorest practical farmers in the world, and hence the great prejudice existing among practical farmers

against what is termed book-farming. The man of action is generally a man of few words. His practical good sense, and active habits, when tempered with judgment and directed by the light of science and experience, never fail to accomplish the most important results. But the practical farmer is too apt to despise the teachings of science. Wrapped up in his own self-sufficiency, he looks down with contempt upon everything like theory, and ignores all your plans of progress and improvement. What is wanting, is a combination of these two conflicting elements.

The theorist and the man of science should come down from their elevation and condescend to practice what they preach, and thus prove the practicability of their teachings.

On the other hand the practical farmer should read and study and investigate, and thus lay up a stock of information, which he can draw upon at any time, and apply according to circumstances. The practical farmer who has judgment and discretion, does not confine himself to any particular programme, which may be laid down, but if necessary he modifies all such to suit circumstances. No writer can suggest a plan of universal application, and often his attempt to do this does mischief, for many practical men seeing that it is not applicable to his particular condition, rejects the whole scheme as altogether impracticable. Agricultural writers should rather seek to lay down fundamental principles, leaving it to the practical farmer to carry out the details to suit himself.

In carrying out the ordinary details of a farm the practical farmer should observe order, system and neatness, and all the surroundings should be made as pleasant as possible. In the location of his buildings an eye should be had to taste, convenience and comfort. He should have good teams and good teamsters, good fencing and good gates, and good farm roads. He should have the best agricultural implements of every kind. He should have good shelters for his stock, and a place in which to store his agricultural implements.

With the surroundings, all unpleasant and repulsive, without order and without system, farming becomes a mere drudgery from which the poor helpless farmer would fain make his escape, did not pinching necessity bind him down to it. But when the situation is pleasant, when all the operations of the farm are conducted with skill and judgment, it is no longer an irksome drudgery, but becomes a pleasant and ennobling occupation, imparting interest, energy and enterprise to the character.

In order to become a neat orderly farmer, one must have some mechanical turn of mind. A slovenly, negligent man will never

make a neat, orderly farmer. If he has not a mechanical turn naturally, he must cultivate one; otherwise he will never be very successful at farming. The experienced eye of the mechanical man is always on the lookout, and if anything is out of order or out of place, it is detected at once, and he is not content until it is put in order. In superintending the operations of his farm, his wits and his inventive capacities, are constantly at work, devising schemes and plans by which time and labor may be economized, and the work better done.

Every practical farmer should learn something about mechanism, and how to handle tools. A man with a little turn that way will soon learn this.

He should have a work shop and keep a set of carpenter's tools. When a gate, a common plow, a hoe or axe helve is wanting, or when a wagon or ox cart is broken, let him "pitch in," as the boys say and do the work himself. In this way a great deal of expense and time may be saved.

There is another very important duty of the practical farmer which I will notice here. Every farmer should give his business his personal attention. Personal interest is a great incentive to human action. It sharpens the wits and stimulates the energies in a wonderful manner.

A man can attend to his own business much better than another can for him. His interest, his health and his happiness would all be greatly promoted by it. He saves the expense of employing an agent or overseer; invigorates his physical system, and escapes the pernicious influences of indolent and luxurious habits.

Ordinary laborers seldom exercise any judgment or discretion in the performance of their duties, and there is scarcely an operation on the farm that does not require the personal attention of the master.

The experienced, critical eye of the practical farmer is always needed. A great deal more work will be done, and much better done thereby.

Let me, then, urge every farmer to devote more personal attention to his own interests, remembering that it is only by manly energy, industry, good management and economy that we can recover prosperity and happiness.

I disclaim all intention of making any unkind reflections upon overseers, but it is an obvious fact that since the liberation of the negroes they do not like to work under an overseer. Overseers now find it difficult to get them to work well, and are often involved in personal difficulties with them. The master, however, can manage them just as well as ever, and they have not the least objection to working under him. Under the eye of the master, they are generally obedient, respectful and faithful, and were it not for political agitators, they would be by far the cheapest and best laborers we can get.

"South Sider."

Farming—Its Advantages.

The importance of an enlightened system of agriculture to all the most substantial interests of mankind has been so frequently brought before the public, that it may seem almost unnecessary to dwell further on the subject, or to insist yet once more on the fact that to those nations who have most closely and carefully improved their agricultural status, Providence has awarded the highest prosperity.

Our cities are this day crowded with young men who have thrown up excellent chances of a successful life as farmers, with all the attendant advantages of an influential and honorable position in the countries from which they severally hail. Much valuable time is spent by this class in seeking out situations, the competition of which is enormous. A berth is found, may be; but in the majority of cases, at such a salary as will barely keep the occupant decent. There are many such men, who after years of drudgery at the stool or behind the counter, at the age of thirty, are drawing no higher salary than \$600 or \$800 a year.

The enjoyment of good health is the first consideration in the life of man. Farmers are in a position in which they can obtain those two grand secrets of a healthy body—fresh air and constant exercise. The farmer has constantly at his very door all the more substantial luxuries of life. In his barns, in his fields, in his orchards, and in his dairy may be found that which will satisfy all animal wants; his business is carried on not in dingy chambers, but under the blue canopy of heaven; he is not confined within four walls, but roams at will over his broad acres.

Of all the feelings planted in the human breast, there is none we cherish so carefully or prize so highly, as that of independence. No man dependent upon the public for his daily bread can be said to enjoy this privilege equally with the farmer. Business men, as well as professional men, live in a constant turmoil of excitement, ever striving against one another, and dependent to a great extent upon the favor of the world for their success in life.

The farmer fears no competition, and need be put to none of those

endless shifts in which the trader so often deals in order to overreach or undersell.

The farmer's business, though subject to more casualties than any other, is yet so divided among many risks that he need hardly fear total failure. The weather that may affect injuriously one crop is often very beneficial to another, and a "hard" year, or extra difficult seasons, serves to open up new ideas; the continued failure of a crop frequently brings to the farmer new and often lucrative kinds of produce. Pitt, in his survey of Leicestershire, says: "In twenty-four years' experience upon a considerable scale, I always made the most money in difficult seasons."

The farmer is not wearied by the dull sameness of the ever repeated round of duties by which his brother in town is worn. Each morning brings some new sight to look upon—some new work to be performed; from seed time to harvest, from ingathering to planting, the farmer's work is one of constant change. In his labor there is no monotony.

That a fortune can be realized upon a farm, none who have seen the prosperity of American farmers, their substantial houses and comfortable properties, dare doubt.

Whilst banks are closing, merchants are failing, speculators are ruined, and tradesmen are becoming bankrupts, the farmer is plodding slowly on, and independent of all, is gradually and steadily accumulating that fortune which shall educate his children and keep them in comfort in the days of his old age.—The Ruralist.

Degeneracy of our Cereal Crops.

Why do our cereal crops, especially the wheat crop, so rapidly degenerate? We see it and hear it complained of by farmers in all sections of our country. Look at sections where formerly large crops of most excellent grain were produced; now the yield will hardly pay for the seed. See also the once choice varieties of wheat that were supposed not to be excelled for quality, or quantity in productiveness, etc. What has become of them? Why may not a superior variety, when once obtained, be kept and grown for an indefinite term of years? We have the recorded evidence of cultivators that in the valley of the Nile, in Africa, the same varieties are grown successfully from year to year, for a long period, without the least deterioration. The same thing is possible in any country, we firmly believe.

It is an established fact that all seed producing plants are liable to

mix or hybridize with others of the same family or class, when grown in proximity to each other. The modus operandi of this hybridizing the botanist understands to be the mixing of the pollen of the blossom. In order to mix or hybridize, the different varieties must be in blossom together, and shed their pollen at the same time. The wind, insects, etc., are often active agents in distributing pollen, and frequently carry it considerable distances and deposit it, so that it is unsafe to grow different varieties of the same plant, when we wish to keep them distinct and pure, unless there is a considerable intervening distance.

Any impregnation of one variety with another causes a variation in the seed produced—thus producing a mixed variety; consequently the farmer who sows such seed, thinking to improve his variety, finds to his cost that he has made a mistake. One of the causes of degeneracy in our grain crops I have hinted at in the above; other causes are, imperfect preparation of the soil, careless culture, seeding, harvesting, threshing, and lastly but of greatest importance, sowing indifferent or poor seed, impregnated with much foreign seed or matter. If a pure variety be planted by itself, far enough away not to be influenced by any other variety, be thoroughly cultivated on good soil, harvested, threshed, and kept entirely distinct from any of its kind; and if this course of culture, selections of the most perfect and best developed seed be continued, there would be less heard of the degeneracy of our wheat and other grains; instead, the excellent characteristics of any variety may be preserved intact an indefinite term of years.—Cor. Practical Farmer.

Enterprise in Farming.

We are inclined to think, says Dr. True, that more farmers fail in being what they wish to be, or in having what they want to have, through want of enterprise, than the want of any other requisite. In industry and frugality there is probably no class that equals them. The money gained by honest toil in the field, is seldom wasted in the wine-cup or gambling table. They work hard and long, and scrupulously save their earnings. Still, comparatively few become wealthy, and with those few the wealth acquired is ordinarily the work of a life-time.

This comes, we think, chiefly from a lack of enterprise—from being over-cautious about entering into any branch of farming operations that has not been thoroughly tried, tested, and declared safe. The old adage, "nothing ventured, nothing had," is exemplified in the lives of 99 out of every 100 farmers.

A certain degree of caution is a good thing; but it is quite as bad to have too much of it as too little. For every farmer who loses by showing some enterprise in raising new crops, sowing new varieties of seed, or in branching out into some new line of farming, there are a hundred who keep themselves poor by always running into the same old ruts. It is not to be expected that all new things will pay in farming, any more than in other kinds of business; but some of them will pay, and these will compensate for what has been lost in experimenting with others.

As a rule, a man thinks better of himself, and his neighbors think better of him, if he have the courage and enterprise to strike boldly out into some new undertaking that promises well, even if he fails in it, than they do if he sits contentedly down, and only does the things which his father saw his grand-father do.—Farm and Orchard.

STOCK DEPARTMENT.

Stock Raising.

SUBSTANCE OF AN ESSAY READ BEFORE THE CENTRAL FARMERS' CLUB OF ROCKBRIDGE COUNTY, OCT. 27, 1871, BY WM. P. COE.

[Communicated by "Petropons."]

In considering this subject, which is one of prime importance to all engaged in farming, we are called upon to recommend what we consider the best plan of feeding and grazing, so as to realize the most most profit on the capital invested and the outlay incurred.

CATTLE.—For Summer food, blue grass furnishes us the best pasturage, if we look to the health of the animal and the production of flesh. In grazing it is not good economy to give a large range; stock will not thrive as well, and using over it repeatedly, they lose their relish for the grass, and destoy much of it by trampling it down; especially is this true of a clover range, the crushing of whose stem is fatal. Experience in England, and to some extent in this country, goes to show that soiling is profitable, one acre yielding as much as three grazed over. In feeding rough food and grain in the field, or in the barn yard, there is always much loss. There is not only a saving of food by having good stables, but there is also the advantage of comfort to all, and protection secured to the weak. It is better to feed all rough food cut fine, and all grain ground and steamed, as this

makes it go further, and renders it more digestible especially for older and younger animals. And thus, too, inferior food is utilized, especially when a little salt (my regular practice) is mixed with the feed night and morning. All feeding should be regular and at regular intervals, and especial care be taken of such as are with young, and immediately after their delivery. These should have comfortable quarters and kept to themselves. Feed such scantily for a short time, to avoid milk fever, and especially should the sow not be disturbed with food or otherwise for twenty four hours. Negligence under such circumstances is irremediable and yet is very common.

We cannot well bestow too much attention upon our young stock when weaned. I halter my calves the first winter. They are thus more easily managed and handled, thrive faster and consume less. In weaning lambs, I put the ewes with them in the enclosure where the lambs are to be kept. They will thus be more reconciled to the separation. The ewes should be put on thin pasture, to prevent garget. My pigs, I wean at two months. In raising stock of all kinds, we should bear in mind, that deficiency in muscle, want of size, and lack of symmetry, resulting from neglecting an animal in its earlier existence, never can be remedied, be our care and feeding in the future never so generous. Dairy stock demands the strictest attention, being from neglect and carelessness far below what they should be in our country. Heifers for stock raising are to be selected with great care. Good general appearance while desirable, is not necessary. The escutcheon is reliable. If we neglect our heifers, it will tell upon the cow. They should be gently handled from the start and made to feel that we are their best friends. Accustom them to the hand. Fondling and petting will ensure a quiet disposition a sine qua non in a good milker.

Aim not to have your heifers to come in at less than two years of age, as it seriously affects their growth and symmetry and injures their constitution. Good milking qualities are not all the requisites. We are to look to the progeny, with a view to secure such as will grow rapidly and fatten readily.

To secure an even supply of milk during the grazing season, we must change their pasture. When by accident they get into even inferior pasture they eat with apparent relish. Ever give them access to pure running water. Always drive quietly. Annoyances of every kind tend to diminish the quantity as well as to injure the quality of their milk. Cows will sometime hold up their milk. This is owing to fear, sullenness, and sometimes it is to provide for their ealves. I do not approve of the course of some persons, who draw

from the cow first, and leave a portion (and by the way the richest) for the calf, as it ruins the cow as a milker.

In the Fall they should not be allowed to graze in the morning until the frost is gone; this tends to dry them. As pasture fails they should be fed and housed when cold rains prevail, as such rains are as much to be avoided as severe winter weather if not more. In Winter stall and halter regularly in buildings well ventilated and comfortable. Feed good hay or fodder in abundance. As grain feed, I use one bushel of corn with five of oats, all ground fine, mixed with roots, (and let me here say I regard the root crop as the most important to the stock raiser,) as one acre will furnish more nutriment in roots than in any thing else that can be raised, and these are a convenience in winter, relished by animals, conducive to digestion and promotive of health in every respect.

In the Spring the change from dry to green food should be grad-

ual, to prevent scouring.

Upon steers careful handling shows its effect. A steer at three years under proper management will be equal to, or better than an ordinary four year old, a clear gain of a year. On the other hand if we have indifferent pasture, hay, fodder &c, he is sure to fall heir to it. In my opinion the great difference between our steers and those of Southwestern counties is owing to the fact that they get the best, here the indifferent. With good grass in Summer, a small amount of roots and grain, and good hay, &c., in Winter, our herds will be more saleable, equal in weight at three to one neglected four-year olds. I once butchered a calf at ten months, weighing 435 lbs. Give your cattle good treatment from the start and you will never regret it.

Horses.—Save in respect to mares and colts, I am not experienced in the management of. I have learned that the horse should have pleasing associations connected with his breaking, gentle means being preferable to force. He may be forced, but beware lest this very force add not fuel to the fire, if he become unruly.

SHEEP, properly managed, are more profitable than any other variety of stock, and our country generally is well adapted to their culture. There are disadvantages attending sheep husbandry at present—the chief, the existence among us of a thieving population. Too lazy to work and obliged to eat, they must steal, and the poor sheep is their victim. The pig will squeal, the calf bawl, but the sheep is dumb. But for this I would, as formerly, give my attention almost exclusively to this husbandry. Sheep are peaceable, easily managed, will thrive where other stock will scarcely subsist, and their

fleece will more than pay all the expense of keeping. They meet with ready sale at all times, at fair prices—especially lambs. They are profitable to feed, being small consumers of grain in proportion to meat produced. They are close-croppers, it is true, and their close cropping is objected to on the ground that it is injurious to grass; but a judicious transferring of the flock will in a great measure remove this objection, and it is the too common practice to pasture sheep on land already too closely grazed.

I have found that what will fatten two steers will feed forty wethers. Now, suppose the former gain 600 lbs. and the latter 1,000 lbs. by February—usually the best time to sell: 600 lbs. at 8 cents, \$48; 1,000 lbs. at 7 cents, \$70—a balance in favor of the sheep of \$22. Should it so happen, as it frequently does, that it is not advisable to sell because of low prices, and we have to keep over, your 40 wethers will clip you in May wool worth \$40. How, then, with your bullocks? They are kept out without profit—generally with actual loss.

The best plan is to purchase a flock of ewes September 1st, and have your lambs to come about March 1st. Early lambs are attended with additional expense and trouble but with profit, as the lambs will bring good prices and you have ample time to fatten your ewes and sell by August 1st. It is an advantage not to keep the same flock over one year. Let us make an estimate:

A purchases, say 200 ew	es, a	t \$2,	-	-		400	00
Losses and expenses,	-	-	- '	-		300	00
He sells 200 lambs at \$2	50,	-	-	-	500 00		
" 200 ewes (fat) as	t \$2	50,	-	-	500 00		
" 700 lbs. wool, at	30c		-	-	210 00		
Balance to side of profit,		-	-	-		510	00
							—

\$1210 00 \$1210 00

I can testify to the correctness of this statement, having had experience in sheep raising for years. Such results can be secured only by good attention, and especially at or near lambing time. Comfortable sheds should be provided for them to have access to at pleasure. Every few days, remove such as are near lambing for extra separate treatment and feeding. The best feed is oat meal or bran, with roots. Close attention is indispensable. They sometimes require assistance; sometimes refuse their lambs, but holding them a few times brings them in. In intensely cold weather the lamb will freeze if not assisted soon to nourishment. These may appear stringent rules. Any one so regarding them I would advise to leave

sheep husbandry to other hands. I saved 60 lambs in two days in the winter of 1854, worth \$150 cash in the spring.

Hogs I do not consider it profitable to raise. It is cheaper to buy shoats in the fall than to raise them. If we must raise them, I find cooked food to be most economical.

Sows should not come in under 12 months; if sooner they are stunted and injured as breeders. The best course is to have your pigs in early spring, and feed and fatten for pork from the start, so as to slaughter the next fall. You can make from 150 to 200 lbs. to the head in eight months, saving the dead expense of wintering.

Brood sows should be broad and straight on the back, wide between the hips, with a large number of teats, legs of moderate length and head short and broad between the eyes. Sows should not be suffered to run at large, because of the great and numerous losses incurred through the agency of rogues, foxes, &c.

For fall feeding, commence with corn in the roasting-ear state, feeding stalk and all. They will eat all greedily, and improve in size and weight rapidly. My allowance is two good stalks with ears to each hog. In bad, especially cold, rainy weather, give warm, dry shelter.

I close with the following general rules as to stock management:

- 1. Never sell your best stock, because they bring you good figures.
- 2. If you have only inferior stock, always select the best breeders.
- 3. Do not part with your best males on any account.
- 4. Never turn stock on clover fields in hot weather, as it is injurious to the land as plowing when too wet, but keep a small field as a wet weather pasture.
- 5. After your stock have been put into winter quarters, never turn out to graze until spring, as such a course injures both the land and the animal: the former by poaching the soil—the latter by giving it a dislike for dry food.

Various Opinions.

FEEDING STOCK.—Overfeeding is as injurious as underfeeding. Probably more sickness occurs, especially amongst horses, from this cause than from any other. In addition to this evil effect much fodder is wasted when stock are supplied with unlimited quantities. Even if it is only within their reach, they will pull it down, pick out the choice bits, and waste the remainder. There is a certain amount which is just right, and either more or less than that is an evil to be guarded against. Owners of stock should watch this, as being more

interested and better capable of judging than the great majority of hired men. The proper supply may be measured by the appetite of the animal, which in good health will lead it to eat with relish all that is necessary. When any is left in the manger the beast has been overfed, and when it has just enough it will eat and enjoy its ellowance and lick its trough clean. It is difficult to manage this without direct occasional supervision. "Where the owner is, the crib is clean," and in his absence much waste is almost certain to occur.

PREVENTIVE OF MURRAIN.—I. F. Huddleston, a prominent citizen of Purdy, McNairy county, Tenn., says that the people of his place, after a series of careful tests and experiments, have become fully satisfied that the Ailanthus or "Tree of Heaven," (Ailanthus glandulosus,) is a sure preventive of murrain in cattle. He says the cattle commence eating the leaves of the tree about the time in the season when murrain would appear; and that none having access to it have ever been known to take the disease, while others all round have been seriously afflicted.

Care of Horses' Feet.—The foot is the most important part of a horse; when that is out of order the horse is entirely useless. At this period of the year a great deal of care and attention may profitably be turned to the feet of our horses. Mud, wet, slush, and filth of any kind allowed to remain on a horse's feet will certainly injure them. When a horse is brought in from work the feet and legs should be washed free from dirt and rubbed dry. The hoof should be occasionally well tarred with common pine tar. If any injury occurs from "calking" the cut should be kept clean, and if it is at the junction of the hoof and the skin, pains should be taken to heal it up at once, lest the hoof may become permanently injured as it grows downward. If it is kept soft and pliable there is little danger of this, but if it is allowed to become dry and brittle bad sand-cracks or split-hoof may occur.—Hearth and Home.

SHEEP.—Some way or other, agriculture seems incomplete without a flock of sheep. They are essential to the thick-set longevity of the old grass land, and all the world over and in olden times they were esteemed as most important, and in the most improved agricultural country, viz: England, they are cherished by every farmer, from the highest to the lowest. The wool is one of the incomes which cannot be dispensed with, and the flocks are so managed that

the tegs cut heavier and more valuable fleeces than older sheep; in fact, teg fleeces in England not only weigh 30 per cent. heavier than those of the ewes, but make ten or more per cent. higher price. If any tenant farmer in the regular agricultural districts of England, farmed without sheep, he would soon lose his crops and nobody would rent to a man who did not practice sheep husbandry.—Country Gent.

Hog Cholera.—The best preventive of hog cholera is to feed three parts wood ashes, two parts salt, one and a half parts sulphur, pulverized. Mix with wheat bran. We feed once a week. Also let your pens be well ventilated. Many crowd a number of hogs in a small, dark and dirty pen, and expect them to keep healthy. If such persons would notice, particularly on opening their stys in the morning, what a powerful stench fills the air, they would view this matter differently. And if this did not open their eyes, let them be tied up in their own stys twenty-four hours. Their nausea, burning eyes, and inflamed lungs would convince them that their animals had a hard time of it, and that it is wonderful they did not sicken and die. Do not feed musty corn, and your hogs will not be apt to take the cholera.—Amer. Stock Journal.

MANURES.

How Should Manure be Applied.

Observation and experience should determine the mind of the farmer in regard to the best plan of applying manure, whether to plow it under deep, or leave it on the surface. The advocates of surface manuring speak against manure being turned under too deep, while the advocates of deep manuring charge surface manuring with fertilizing the atmosphere. But there is a medium course and each theory is supported by plausible arguments. However, there are true philosophical principles against burying manure too deeply in the earth. The loss of the saline matter of the manure by solution and infiltration will be great in porous soil, and the evaporation, to which so much loss is attributed by those holding opinions adverse to surface manuring, would be only a small drop in the bucket compared to the loss by solution.

In porous soils it is well known that manure will penetrate to a great depth, and much animal matter may descend beyond the reach of surface growing plants. Humus is formed by the decay and

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decomposition of vegetable matter, which in the philosophy of nature is manipulated on the surface, hence the rule in the application of manure should be taken from the indication of nature and science. The decay and consumption of one crop for the nourishment of another, and the droppings of animals and defoliation of trees and plants are all left on the surface. This seems to contradict the idea of any loss by evaporation. It will, therefore, be best to adopt the plan of deep cultivation, but to keep the manure and vegetable matter as near the surface as possible. There is always some loss by evaporation, but much less than by infiltration. But it should be a leading idea with farmers to be close observers of such natural operations in the growth of spontaneous and cultivated vegetation, and accommodate their practice so as to imitate nature as near as possible.—Cor. Farm Journal.

THE COLLECTION OF MANURE, and the application of it to the soil, is one of the most important works on the farm. Some persons are content with scraping up manure in Spring and applying it to the soil for the Spring crops at the latest moment possible. This is an erroneous practice. Manure ought to be collected in the Summer and Fall as well as the Spring, and arrangements should be made for obtaining large quantities of it in Winter by growing ruta-bagas, mangel wurzel, etc., and stall-fed cattle. The manure produced by stock fed on hay or straw, is not nearly so valuable as that made by animals fed on roots, oil cake, or any rich nutritious food. Muck and marl should be raised in the Summer or Fall, and allowed to season for a year. That which has been already seasoned should be drawn out and applied to fallows, or as top-dressing for grass land. Every farmer should have a liquid manure tank in his barn yard for collecting the liquid from the stable, byres, hog-pens, etc. This liquid is exceedingly valuable for saturating muck, old saw dust, or barn yard manure which has become fire-fanged or dried in any way. Muck saturated with good liquid manure, is nearly as valuable for field crops as barn-yard manure. A layer of muck, two feet in thickness, is an excellent foundation for the barn-yard manure heap, as the liquid from the latter will enrich the muck, and when the pile is turned and thoroughly mixed in Spring, it will be all equally good.— W. Rural.

Manure from Indian Corn.—It is said that a new manure is prepared in France from Indian corn, now largely used in French distilleries. The grain, previously coarsely broken, is first

subject to the action of dilute sulphuric acid, to convert its starch into sugar. After fermentation the refuse is placed in large tanks, and when all the solid matters have subsided the clear liquid is drawn off, and the residue yields an excellent manure, containing about nine per cent. of water, sixty eight per cent. of organic matters, including nearly five per cent. of nitrogen, and about nineteen per cent of mineral matter.

La Plata or Carno Guano.—The residuum of the flesh used in the establishments of Buenos Ayres for the purpose of preparing Liebig's extract of meat, is now to be met with in commerce, under the name of La Plata, or Carno guano, and is recommended very highly as a manure. Analysis shows that this contains nine parts in one hundred of water, forty one of organic matter, nineteen of lime, magnesia, oxide of iron, &c., ten of phosphoric acid, from one half to one part of potash, and the rest of insoluble matter, such as sand, clay, &c. The nitrogen amounts to nearly 6 per cent.

Ashes for Wheat.—A correspondent of the Rural Gentlemen is strongly in favor of ashes to prevent rust in wheat, and has proved them of great value otherwise. He says ashes operate as a manure upon the wheat, even in the limited quantity of eight bushels per acre. They strengthen the stem, giving it substance and solidity; and they afford just that kind of pabulum or food which is best for the development and perfection of the grain, and will, in his opinion, prevent the ravages of the fly in wheat.

Annual Meeting of the Agricultural Society and the Farmers' Assembly.

A meeting of the Agricultural Society of Virginia was held at the Exchange Hotel, in Richmond, November 1st, 1871.

The meeting was called to order by the President of the Society, Mr. L. E. Harvie, at whose request Mr. F. G. Ruffin read the following report:

PRESIDENT'S REPORT.

Gentlemen,—The Executive Committee of the Virginia State Agricultural Society congratulate their constituents and brother farmers upon another meeting of the Society, and another Fair, which has opened under the favorable auspices of good weather, full attendance, and an exhibition of more than the usual high standard of excellence.

Though the agricultural year has been upon the whole unfavora-

ble, yet the attendance of the farmers on this occasion manifests an unabated zeal in their calling, and leads to the hope that at the meetings to be held every evening during the progress of the Fair, discussion among yourselves may suggest some remedy or alleviation for the evils which have afflicted us. It is important that something be done to put ourselves in condition to freight the many lines of railway which are built or building over the State, and add the inducements of successful tillage and pasturage to the others which now invite hither an immigration, checked at present by the political condition of State and the malign efforts and misrepresentations of interested parties and sections.

As a mode of improving our agriculture, it has been deemed important by the Executive Committee to assert a claim in behalf of this Society to Virginia's quota of the land fund donated by act of

Congress for the purpose of promoting agriculture.

This was done before the General Assembly as early as January last, and again, the Legislature having failed to act upon that question at all during its late session, in April last, a resolution was adopted, appointing a committee to renew the application before the next General Assembly.

The same committee has charge of a plan that has been suggested

to form an Agricultural Museum.

The ordinary trials of ploughs as held at the Fair Grounds during the progress of the Fair, have never been satisfactory to any of the parties interested. To correct this defect, inherent in the system, a committee was appointed to hold field trials of ploughs, in the four great divisions of the State, under published rules, and upon a plan and principle which would secure satisfactory tests of all such implements. Two such meetings only were held, and at one of them (Amelia Springs) only one manufacturer entered for competition. The manufacturers themselves seemed indifferent to the steps that had been taken to redress the grievances of which they complained, though the large attendance of farmers showed their interest in the matter.

At the last annual meeting of the Society the committee found that the Legislature had passed an act in regard to enclosures, in effect repealing all the beneficent legislation of the General Assembly at the session of 1866, and imposing afresh upon the farmers a burden from which they had but lately been relieved after years of remonstrance.

As no time was to be lost, the committee did not wait for the action of the Society, but addressed itself at once to the enlightened mind of Gov. Walker. By that means the passage of the law was prevented. At the next session a sub-committee of the Executive Committee waited upon a committee of the Legislature and induced it to abandon the idea of further action during that session. Without going into details, it may here be stated that, upon the proforma of one county, it was estimated that the tax of enclosures, wholly unnecessary in many counties of the State, would amount to nearly ten times the assumed annual profits of the farmer, or one third of

the value of the land, or twelve times the value of the stock to be fenced out. Perhaps no more striking case can be presented of the

value of Agricultural Societies.

If such institutions could be induced to co-operate and act in harmony, the services they could thus unitedly render would be incalculable. Such union has from the first been a great aim of the State Agricultural Society, but it has failed for reasons too complex to be stated here. The present depressed condition of the State seemed a favorable opportunity to make another effort in this direction, and the Executive Committee adopted at a late meeting a series of resolutions inviting all the other Societies in the State, and also the representatives of the mechanical interests, to send delegates to this meeting of the Society to confer upon some plan of State association. It is to be regretted that the committee has not been notified of any response to their invitation. Perhaps if the Society itself should request some such action on the part of its younger sisters all over the State the proposition might be more favorably received. It is respectfully suggested that if any step is taken in this direction it should include all the mechanical and manufacturing interests of They are all bound up together, and one cannot thrive if the other languish. There is nothing incompatible in the union, as has been practically exhibited over and over, and with the happiest results, in other States.

The general arrangements for the Fair, including the rules and regulations and the premium lists, have been published in pamplet form, and need not be mentioned here further than to say this: With the amplest means it is impossible to please all; the very effort to avoid complaint in one quarter will produce it in another. But when the means are scant, the task is doubly difficult, and those who work gratuitously for the public must rely upon their good nature and their good sense to consider how far the will to do much and to reform much is impeded by funds almost too meagre to do anything at all. The report of the treasurer, which is herewith presented, properly examined and certified, shows a balance on hand on the 30th September last of \$1,346 33.

Respectfully submitted,

LEWIS E. HARVIE, President.

On motion of Mr. S. Bradford the report was received and adopted. Mr. Harvie then adjourned the Society, and having called to the chair Judge F. N. Watkins, announced that the meeting was resolved into a Farmers' Assembly.

The Chairman announced "Immigration" as the subject of discussion for the night.

On motion of Mr. S. Bradford, gentlemen present from other States were invited to participate in the debate.

A spirited and interesting colloquial discussion upon the uses and advantages of foreign immigration to Virginia and the method of promoting it was sustained until near midnight.

Nov. 2.—The Society met pursuant to adjournment.

On motion of Mr. L. E. Harvie, Mr. John Ravenscroft Jones, of Brunswick, was called to the chair.

The report of the committee on proxies showed that 255 members were represented by proxies.

The Society proceeded to the election of officers for the ensuing year, resulting as follows:

PRESIDENT—Lewis E. Harvie.

VICE-PRESIDENTS—1st. W. H. F. Lee, of New Kent; 2d. John T. Cowan of Montgomery; 3d. William C. Knight, of Richmond; 4th. F. G. Ruffin, of Chesterfield; 5th. R. B. Haxall, of Orange; 6th. M. B. Buck, of Warren; 7th. Randolph Harrison, of Cumberland; 8th. William A. Burke, of Augusta.

EXECUTIVE COMMITTEE.—Col. J. D. H. Ross, Rockbridge; R. H. Dulany, Fauquier; Col. Thomas H. Carter, King William; R. W. N. Noland, Fredericksburg; F. N. Watkins, Prince Edward; Major A. H. Drewry, Charles City; J. S. Draper, Pulaski; J. Ravenscroft Jones, Brunswick; Dr. Wm. T. Walker, Goochland; Capt. Richard Irby, Richmond; Secretary and Treasurer, E. G. Leigh, Richmond.

Resolutions offered by Hon. James Lyons, relating to the establishment of an agricultural library, authorizing quarterly meetings of the Society for the discussion of various questions relating to agriculture, and for the appointment of delegates to the Selma Agricultural Convention in December, were laid on the table.

On motion of Wm. A. Ruff, of Rockbridge, it was

Resolved, That the Secretary of the State Society be instructed to correspond with the Secretaries of all the county Fairs in the State to have committees appointed by such Societies to take charge of all articles not perishable, and to exhibit the same at the ensuing State Fair.

On motion, the Society adjourned.

Causes of the Failure of the Wheat Crop in Virginia.

Mr. Editor,—At the last night's meeting of the Farmers' Assembly at the Exchange Hotel, in Richmond, quite an interesting discussion, in a conversational way, took place on the subject stated in the above caption.

Some gentlemen attributed the failure to one cause, and some to another. A very intelligent gentleman from New York, Mr. Goldsmith, thought it was owing to the fact that the fine or good crops of many years previous had exhausted the land, or at least that the food for the wheat crop was exhausted, and therefore the failure.

Mr. Frank Ruffin, Mr. Ro. Douthat and others differed with him. They thought there was fertility enough in our lands, and food that the wheat plant delights in, to make good crops, and that the failure was owing to something else—season, or change in climate, or something they did not exactly know.

Major Ross, President of the Rockbridge Agricultural Society, attributed it mainly to the bad quality of the seed we have used.

Mr. Fontaine, of North Carolina, thought it advisable to rotate wheat with tobacco, &c. I thought it was owing in a great measure to our variable climate, and in part to want of good cultivation since the war, and I ought to have said in our tide-water country to the want of lime, which has been generally abandoned since the war for want of capital; and that want of capital is the real cause of failure, no doubt: for the fact is there can be no success in agriculture without capital. I made a statement in the discussion that forty years ago we had a succession of failures on lower James river for seven years, owing to rust, and after that we had good crops, comparatively, up to the war. I "spoke without the book," not anticipating such a discussion. I had not looked over my farm journal for many years, but on coming home after the Fair I looked over my journal, and found that the seven years of rust and failure in the wheat crops were not exactly in succession, but were in this way: In 1820 rust and failure of wheat crop. In 1821, 1822 and 1823 all failures, owing to rust. In 1824 fine crop of wheat; no rust. 1825 some rust; only tolerable crop of wheat. In 1826 some little rust; moderate crop of wheat. In 1827 bad crop of wheat. 1828 rust and bad crop of wheat. In 1829 storms of rain in May; bad crop of wheat. In 1830 and 1831 fair crops of wheat. 1832 a fine crop of wheat. In 1833 nineteen days' rain in the month of May; failure of wheat. In 1834 and 1835 wheat rusted, failure. In 1836 rains in May and failure of wheat. In 1837 wheat again injured by rain, but tolerably good crop. In 1838 hurricane in harvest, but good crop of wheat. In 1839 good crop of wheat. In 1840 rainy in May; bad crop of wheat. In 1841 and 1842 rust; bad crop of wheat. In 1843 splendid crop of wheat. In 1844 and 1845 fine wheat crop. In 1846 scab injured wheat; small crop. In 1847, 1848 and 1849 fine crops of wheat. In 1850 rust, but tolerable crop. In 1851 and 1852 great crops of wheat. In 1853, 1854 and 1855 fine crops of wheat. In 1856 rains in May; small crop of wheat. In 1857 fine crop of wheat. In 1858 rainy in May; short crop of wheat. In 1859 rust and army worm; short crop of wheat. In 1860 good crop of wheat. In 1861 best crop I ever made. In

1862, 1863 and 1864 fine crops of wheat, as far as sown and harvested. In 1865 good crop of wheat, as far as sown, but not harvested.

I will remark that I began to lime my land, or rather to marl in 1837, and continued marling for seven years in succession one field each year in the rotation of crops. Then I bought oyster shells and burned them in a kiln, and limed a field every year for four years. After that, shells becoming scarce and high, we had to resort to the North river lime, which I continued to use until the war, liming one field in the rotation of crops each year, making about twenty-four years that I used lime. The crops increased after the use of lime until they doubled, and I think were less liable to failure. I had improved my land considerably by the use of clover and plaster before I began to use lime, but it did not make as good crops as after the use of the lime. I began to farm in 1816, and in 1817 I began to sow clover seed and plaster, and never failed to sow both until the war. I think upon inspecting my journal it will be found that the crop of wheat depends upon the seasons. A wet season in May is certain to injure the crop of wheat in tide-water Virginia. Our seasons for health vary. We have a series of healthy seasons and a series of sickly years. So with the wheat—a series of good crops and a series of bad crops. We have had a series of bad crops since the war, and we shall have a series of good crops hereafter. We have had a succession of rainy and cold Mays ever since the war, and that has caused the rust in the wheat, which has caused the failure in the crop of wheat. There is plenty of fertility in our James river lands to make good crops of wheat. As a proof of it we have very heavy crops of straw and fine crops of clover; and I believe if we had been able to continue to lime our lands regularly as we did before the war, we should not have failed in wheat so much as we have. But I do not despair; we shall make good crops of wheat again on James river. I would certainly advise an extension of the old four field rotation, to five or six fields, and make hay for market, and graze for market as far as we have the means. We must, as Mr. Ruffin and other gentlemen of the Farmers' Assembly advised, diversify our crops, so that if the wheat fails we may have something else to rely upon. Before the war we were coining money under the four-field system on James river. Then wheat was the great crop, but it is very different now, so I have advised my sons to change their rotation from four to five fields, and to have three grain crops and two grass crops-one to mow hay for market, and one to graze moderately for market. Six fields-three in grain and three in

grass—perhaps would be better; but it would increase the fencing very much, which is objectionable. I propose to my sons to adopt a rotation of five fields, which is, I understand, practiced in Louisa county, viz: first year in clover, to be grazed; second year, wheat; third year, timothy, mowed for market; fourth year, corn; fifth year, wheat, sown in clover seed to begin the rotation again. Plaster the clover the spring it is sown, and be sure to harrow the clover seed in when sown.

Most respectfully yours,

HILL CARTER.

Shirley, Nov. 9th, 1871.

Cost of a Crop of Corn.

Mr. Editor,—Having seen a number of assertions and intimations made in your journal as to the prime cost of making a crop of corn, some persons estimating a barrel of corn to cost the producer as much as \$3.00, I give you herewith a full statement of growing and harvesting my crop of corn for this year (1871.) The field cultivated contains 65 acres. The corn was cut off at the ground, and shucked on the stalk, making harder shucking, but less handling. I estimated the fodder to pay for all the labor of saving both corn and fodder, (the shucking excepted) and also to pay for all hay or fodder fed to the horses while engaged in any way in working on the crop.

A man costs me 65 cents a day, and a boy or woman, cost 40 cents a day, including wages and rations. This statement accounts for labor, feed, seed, repairs, taxes, &c., but allows nothing for my superintendence, for which I think myself well paid in house-rent and firewood, and in the fruit, vegetables, butter, milk, meal, flour and meat consumed by myself and family. I have allowed 10 per cent on cost of horses and tools for wear and tear, repairs, &c. I make no estimate of the cost of marketing the crop, as that must be varied according to location.

Plowing	61	days,	at	65	cents,	\$39	65
Harrowing	8	66	at	65	"	5	20
Laying off rows	10	66	at	65	"	6	50
Dropping corn	12	66	at	4 0	"	4	80
Covering corn	10	"	at	65	66	6	50
Harrowing corn	$10\frac{1}{2}$	"	at	65	"	7	47
Re-planting	14	66	at	50	"	7	00
Coultering	14	"	at	65	"	9	10
Cultivating	8	66	at	65	"	5	20
Thinning	20	"	at	50	"	1 0	00

30	THE	SOUTHERN	[December
Hoeing	20 days	at 50 cents.	10 00
Coultering	16 "	at 65 "	10 40
Cutting off	39 "	at 65 "	25 35
Shucking	70 "	at 50 "	35 00
6 Plow-points		at 50 "	3 00
10 bushels corn fo	r seed at	\$1 00	10 00
40 bushels corn fo	or feed at	80 "	32 00

Total, 323 17 Cost per acre for 65 acres is not quite \$5, so that if we raised 5

90

barrels to the acre, as we should do, our corn would cost us \$1 00 per barrel.

730

40 bushels corn for feed at

Taxes on land,

Wear, &c., of teams and implements,

Yours, &c., A. A. MACDONALD. Glendover Va., Nov. 7th, 1871.

36 00

50 00

10 00

Goodwyn Agricultural Club.

The Club met at the residence of Mr. M. H. Hester, September 29th, 1871. President in the chair.

The Secretary being absent, on motion the proceedings of last meeting were dispensed with.

Professor Kerr, State Geologist, being present, was invited to a seat with the members.

Mr. R. J. Hicks made interesting remarks upon the subject of stockraising—the regular question for discussion—maintaining the policy of keeping as large a number of cattle as possible to improve our lands.

Mr. I. H. Davis followed, expressing similar views.

Prof. Kerr being called upon, gave his views on this and kindred topics, and answering the many questions from members. We regret that we cannot give a regular and connected statement of his views as they were presented. The Club was much interested and benefitted from the information communicated by him. He spoke of fertilizers derived from stock as of prime importance, not second to any in restoring our fatigued and exhausted lands; of the adulteration of guano and other imported and manufactured articles gotten up to sell to farmers; the various kinds of soil in our State, and the particular grasses adapted to them; was pleased to see so much spirit and life in Granville. He was on a tour of observation over the

State, and regretted to say that with few exceptions there was no substantial improvement, agriculturally, in North Carolina; the tendency, on the contrary, was downwards, and it would not be a very difficult matter to calculate, if the present state of things lasted, when the best interests of the State, dependent as they are upon successful farming, would be prostrated. He felt much pleased in meeting with the members of the Goodwyn Club. Monthly meetings of farmers, discussions, reports of results of experiments, &c., could not be otherwise than highly beneficial. He wished to observe and to learn. He believed the county of Granville was not behind any of her sisters, except perhaps Edgecombe and one or two others in the East, where their facilities for marl were so great, and cotton the market crop. In the portion of the State underlaid by a granite soil it compares favorably with any other. Granite does not yield much lime or magnesia, but is rich in potash. Our soils result from the decomposition of granite rock. North Carolina may be set down as algranite State from Goldsboro' to the Smoky Mountains. What is the reason of the deterioration of our soils? It happens wherever there is such a wasting, loose system of farming as obtains amongst us. Land requires, it demands attention. Two or three hundred years ago the Europeans had to face this problem. This state of things can only be obviated by restoring to the soil the elements which have been exhausted. Every draft on our account in bank leaves us that much less. Generations coming after us have a claim on us, that we leave the soil in a good condition for them. One vicious cultivation, one shallow plowing, enables rainfalls, instead of becoming in a great measure absorbed, to abrade our soils, carrying off some of the best materials. He thought highly of a system of cattle farming as a basis for the restoration of our soils, with also super-phosphates and such guanos and other fertilizers as may be purchased of genuine quality. The first, however, he deemed the most essential. He alluded to the published statistics of Germany, England, Scotland, &c., as illustrating the importance of this. There they have a mathematical rule as to the number of cattle for each farm. We ought to avail ourselves of their experience. We can grow grasses as well here in North Carolina as can be grown in Ohio or New York. Make cheese equally as well. 'Tis a shame that Northern hay should be imported into this State, and the same may be said as to pork. He told the Edgecombe farmers the same thing. Where grass can be grown, cattle can be raised advantageously. We are too inert.

The President asked Mr. K. as to meadow grass—how overflows affect it, &c.

Mr. K. said that the creeks and streams rise higher and oftener now than formerly. This was not owing to our climate, for that was not materially changed. He attributed it to shallow plowing, especially on rolling lands or hill sides. We must remedy this with clover and grasses.

Mr. F. B. Hester said he had tested as well as he was able the merits of the bag of "Cairo Guano," sent as a present to the Club from Col. Lamb, of Norfolk, and turned over to him for experiment. It compared very favorably with an established fertilizer which costs ten dollars more per ton. No difference apparent in the crops of the present year. They were alongside of each other, and both suffered severely from drought.

Mr. Horner here alloded to an experiment he had on hand in liming a lot of land, but was not yet able to state the results. Here a little discussion ensued, in which Messrs. Horner, Kerr, Davis, E. H. Hicks, Martin and Jno. R. Hicks participated. The latter had never seen lime act well unless there was much vegetable matter on the soil.

Messrs. Horner, E. H. and R. J. Hicks were requested to represent the Goodwyn Club at the State Fair.

On motion of Capt. C. R. Lewis, the Club adjourned to meet at his house the last Saturday in October.

NATH'L. A. GREGORY, Sec'ty.

A Variety of Crops.

Mixed husbandry has two great advantages—it gets the benefit of all the land has to bestow, the various crops drawing upon the various materials of the soil. Hence a greater length of time can be covered without replenishing the land, though it is better to feed liberally and constantly. Second, In the variety of produce there are always some products that will sell well, even in the worst of times, while there is less loss in the poor prices where but a small quantity is sold. In this way there is no loss, but always a gain; not a fortune realized (nor a fortune lost,) but fair, moderate profits secured.

This is safe farming, just as in speculation the man who is content with moderate profits is the safe speculator, prosecuting his trade when others fail.

Cor. Country Gent.



Horticultural Department.

The State Fair.

The late exhibition of the State Agricultural Society passed off with perhaps more eclat than any of its predecessors, and in many respects it surpassed any that have been held since the fall of 1860. The number and quality of the cattle, horses, poultry and machinery were remarkably good, and deserved the admiration they elicited; but the exhibition of horticultural and pomological products was insignificant, and not at all commensurate with the occasion. ought to have been one of the most attractive features of the Fair was hardly sufficient to demand a passing notice. True, the few flowers, fruits and vegetables that were exhibited were excellent, and proved beyond a doubt the practicability of our growers making a fine display, but there were possibly not over a dozen contributors. This is not as it should be, and it becomes us to inquire into the causes which produced this failure, with a view to prevent, if possible, a recurrence in the future. We do not think it was owing to any lack of public spirit on the part of our market gardeners, florists and fruit-growers. On the contrary we have always found them willing to contribute cheerfully of their time and labor to aid in the development of these important interests. Nor was it from any incapacity to make a handsome show of such products. The contrary has been demonstrated at former exhibitions of this and other Societies. We do think, however, that the arrangement of the premium lists and the amounts offered as premiums, have together acted almost as a barrier to entries for competition in this department.

Take, for instance, garden products. The premium offered for best acre of Irish potatoes, not less than two hundred bushels, was ten dollars; for best dozen cauliflower, one dollar; for best dozen cabbages, one dollar, and so on throughout the list: while we find under farm products, for best bushel of wheat, five dollars. Now either of the articles above mentioned in garden products is of equal if not superior market value to a bushel of wheat. Why, then, the

difference? We do not think the premium offered for wheat exorbitant—indeed, it is small enough—but the other prizes are absolutely

trifling.

Take again orchard products. For best bushel dried peaches, four dollars is offered, while for the best collection of apples only five dollars is to be awarded—the latter embracing, as it has done at former exhibitions, from one to two hundred varieties. If the one is worthy a premium of four dollars, the other should be at least twenty-five or fifty.

The same inequality and want of appreciation is manifest throughout the entire list, and we are sure that this has caused the indifference shown by our growers at the late exhibition.

We hope that the Executive Committee will thoroughly revise its premium list for the next year, and bring out the fullest display of fruits and vegetables ever yet made in the State.

The Horticulturist and the American Pomological Society.

The November issue of the *Horticulturist* contains an excellent report of the proceedings of the last session of the American Pomological Society. It concludes with some most important suggestions as to the manner the discussions at the meetings of that Society are conducted. This journal, we are glad to see, agrees fully with the views suggested by the *Southern Planter and Farmer* in the November issue, concerning the intolerable waste of time caused by the present mode of revising the Catalogue of Fruits.

Our thanks are due our cotemporary for its kind allusions to Richmond and Virginia; but candor compels us to dissent entirely from its strictures upon our more Southern friends, as exhibited in the following extract.

After saying that strenuous efforts were made to secure a large attendance of Northern and Western pomologists, which efforts were highly successful, the Editor goes on to say:

"And it was hoped that now, since an opportunity of unusually favorable character was afforded to the South to exhibit their product,

it would be accepted and grandly responded to.

"We need hardly repeat here our disappointment. For with the exception of the fruits from Virginia, whose growers had manifested the utmost interest and zeal in rendering the whole occasion a creditable success, at least to the Old Dominion, yet the display from other Southern States was meagre and indefinite. It seemed as if there was either an apathy in interest, or a constitutional inertia and indisposition to effort, which rendered it an impossibility to gather

together the right material, and form an union of heart, hands and products in supporting so worthy an institution. We speak frankly, for the fact is not to be disguised that the South did not respond as freely as was expected, nor as much as would have been to her credit."

Now, in all frankness, we think this was penned without due reflection. Surely the Editor of the *Horticulturist* knows—certainly he ought to know—that in an unfavorable season, such as the past has been in the extreme South, it was impossible for the Southern pomologists to make any display at the season of the year at which the exhibition was held.

What fruits could they have shown? Certainly not peaches nor pears, as these had disappeared with them ere that date. Apples are not to be expected at that season, it being too late for early, and too early for late varieties. Nor is it the precise time of the year for oranges. Then what could they have exhibited?

As to the charges of "apathy in interest," "constitutional inertia" and "indisposition to effort," we cannot think the Editor of the Horticulturist remembered that such men as P. J. Berckmans, of Georgia, Col. Hardee, of Florida, and Dr. Wylie, of South Carolina, were representative members from the South; or, if he did, he must have written without knowing of what he spoke.

That the South did not make such a display as the North and West, is not surprising. Fruit culture is of very recent date in the South, and under the most favorable auspices, a great exhibition on the part of the Southern Pomologists ought not to have been anticipated; but taking into account the unfavorable season, and the unpropitious date, at which the Society met, absolutely nothing could be looked for.

Congratulating the *Horticulturist* on its most excellent report, and expressing thanks for its courteous mention of Virginia, we must object to its, as we think, unjust criticism of the Southern pomologists.

A Word to our Friends.

At the close of another year, which we hope has been a successful and happy one to all our readers, we wish to have a friendly talk with them concerning our respective duties and obligations.

Each year, as it passes, is adding rapidly to the importance of the horticultural interests in the State, and indeed throughout the South. A few years since our horticultural and pomological products were

so unimportant as to command but little attention: now they stand hardly second to any. A few years ago we imported quantities of the staple vegetables and fruits: to-day we export millions of dollars' worth of each; and this is but a beginning—a foreshadowing—of what is to be in the future, when to our splendid advantages of soil and climate and the industry and energy of our growers shall be added the knowledge and skill which observation and experience alone can fully supply.

Great and unparalleled as has been the growth and success of these interests, no one can doubt that even far greater results might have been achieved and many failures avoided had the practical experience of different producers been freely interchanged. This has been the great defect, the great error on the part of our gardeners and pomologists: each has worked for himself and by himself, and few have seen or sought the advantage of profiting by the failures and successes of others.

It is our duty to give all the information we can, and wherein we have failed we beg at least that it be not attributed to any lack of disposition. But do not our readers owe to themselves and to our great and glorious brotherhood the duty of diffusing their individual light abroad for the benefit of all?

No class of men are so free from jealousies, so closely and thoroughly united in a common and most ennobling calling as are the horticulturists and pomologists. This very harmony of association entails upon us all an obligation to be co-workers in the great work of building up and pushing forward the science and practice of horticulture; and in no way can it be more readily or more profitably done than by using freely the columns of the horticultural journals for the dissemination of such individual knowledge.

May we not hope that our patrons who are so successfully engaged in this branch of industry will, one and all, resolve with the ensuing year to see to it that the horticultural columns of the *Planter and Farmer* are abundantly supplied with facts, observations and experiences which shall serve as beacons to warn others of shoals, or as encouragements to raise the hopes of those who are desponding? Do this and we guarantee you such a journal as cannot be excelled and as you cannot fail to prize beyond your highest conception.

Do not say that what you have to say is a small matter and of no importance. It is the little things of every day occurrence that are needed. A few lines showing cause of failure or relating success, are what do most good and are most acceptable to the public.

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We return our sincere thanks to the friends who have so kindly aided us in the past, and our earnest desire is to swell the list until every subscriber shall become a contributor.

English Sparrows.

The editor of the Gardener's Monthly in reply to a correspondent says:

"There is not the slightest doubt that the English Sparrow is the most powerful antagonist that insects of the caterpillar kind have yet met with As for the curculio and those insects which chiefly work at night, the English Sparrow will not help you one bit against them. They will simply give you green trees, where you want nice sumsummer shade—very nice matters for town and suburban gardens.

As for fruit and grain, they are ravenous on them-taking all they can get. They not only expect to be paid for the good they undoubtedly do in destroying insects, but wish to be their own judge and jury as to the compensation they are to receive.

On the whole, we favor the birds. We accept their assistance in our great battle with the insects, which are nearly over-matching our horticultural operations; and when the time comes for them to put on airs, as come it will, "a new departure" can much more easily be inaugurated for them than for other troublesome things."

THE ORCHARD.

Apples and other Agricultural Products Comparative Profits.

Simply because it may be necessary to wait from five to eight years before receiving much direct profit—is that the reason why apple raising is so much neglected? Surely there is no other agricultural product that will return such compensation for the same amount of money and labor expended, as the following comparative results will clearly show:

First, corn, one acre. Cost of plowing, dragging and making, \$4.50; seed, 50c.; planting, \$1 50; hoeing and cultivating, \$5 00; shocking, husking and drawing, \$8 50; use of ground, \$15-total, \$35: profit (120 bushels corn in the ear), 50 bushels shelled corn, \$50; 20 bushels soft corn, \$2; stalks, \$10; pumpkins, \$5-total profit, \$70; net gain, \$35.

Next, potatoes, one acre. Cost of cultivating, harvesting, &c., the same as corn (except seed), viz: \$24 50, which, added to the vol. v—47

cost of ten bushels of good potatoes, \$7—41 50; profit (150 bushels potatoes), 125 bushels marketable, at 60c. per bushel, \$75; 55 bushels small ones, at 30c., \$7 50—total, \$82 50; net gain, \$41. As regards wheat, oats, &c., the average net gain does not exceed \$20 per acre, and in hops, with some rare exceptions, the profit is annually about the cost of picking and transportation, leaving a net gain of minus from \$50 to \$1 per acre.

Now for apples. Cost of cultivating, use of ground, &c., about \$18 per acre annually; cost of picking 250 bushels, at 15c. a bushel, \$37 50, and 50 bushels, at 5c. a bushel, \$2 50—total, \$58; profit (300 bushels apples), 250 bushels, at 75c. per bushel, \$187 50; 50 bushels, at 25c. per bushel, \$12 50—total, \$200; net gain, \$142. To this add \$18 for hay, if the orchard be seeded down, and we have a net gain or profit of \$160 per acre, or a gain of from four to eight times that of other agricultural products. It should be borne in mind in connection with the seeming objection at the head of this article, that the trees, for the first few years of their existence, or until they are in good bearing condition, do not materially affect the successful raising of other crops on the ground at the same time.—Journal of the Farm.

"Electricity" not the "Growth of Trees."

In the July number is a reply to my refutation of Dr. Stayman's statement that electricity is the greatest agent in the growth of trees. I said "a tree grows as much as the boy whistled—'it whistled itself'—so the tree grows." Now I am prepared to prove this fact, and to disprove that electricity is the principal agent, or power, in the growth of a tree.

First, the tree *inherits*, maintains and works its own natural powers the Creator established in the seed which brought forth the tree. The first principle of our trees was inherited from their parent trees, assisted, directed and finished by the flower which impregnated the seed, and this was assisted by all the agencies which contribute to the growth of the tree.

Second, I find a principle in the varied deviation of the new generation of the tree that I am not able to explain, nor has any one as yet been able to teach it to us, nor can Dr. Stayman credit it to electricity, nor I to "the tree grows itself." It is this, that while the cion of the Rhode Island Greening will always produce the tree, leaf and fruit of itself, the seed of the same tree will not be the Rhode Island Greening. Then we find that while the tree grows itself, it

does not grow its own seed itself, nor can we credit it to electricity, nor can we find what to credit it to. Why the seed will differ at all from the parent any more than the leaf or fruit, much more the seeds of the same apple, impregnated by the same flower, the same time, is as far beyond my comprehension as it is that electricity grows a tree.

Third, to prove that "a tree grows itself," and that electricity does not grow it, the oak invariably grows the oak leaf and acorn, and never grows the apple and apple leaf; and the apple tree grows its own fruit and leaves, and not those of the oak. I ask Dr. S. if he cannot see more of the agency of the tree itself in this work, than that of electricity?

Fourth, the tree cannot grow of itself without agencies to assist it. Yes, I must admit this, as much so as the man who builds a house, or prints a paper, must have agencies to assist. What are these agencies, electricity? Yes; as I said before, earth, water, air, with all their constituent parts—oxygen, nitrogen, hydrogen, electricity, (if the latter is not a component part of the atmosphere, it is omnipresent, as is water,) light of the sun, heat. Not only all, but any one of which has as much to do with the growth of the tree as electricity. If we examine the agency of water, we find it carrying all the other materials, drinking in the rays of the sun, and excluding none, carrying all to the leaves, and re-freighting back to their destiny where they are ordered—what orders them, the materials of the tree's growth? Is it electricity? Or is it the tree itself?

Fifth, who knows best its own wants, the tree itself, or electricity? Herein lies the secret of the growth of the tree itself, that it orders its own food for its own building up, and distributes it to its own wants and uses, by its own inherited power. Why, a tree is a perfect republic in itself, allowing no foreign power like electricity to come in and set up a dictatorship. I have seen electricity attempt this with its awful overbearing tyranny, attempt its powers on the oak, stalwart and nobly defending its modest rights, even to its rending asunder, and perishing in its noble independence.—S. Foster, in Western Pomologist.

Dwarf Pear Trees.

In our own grounds the past two seasons, we have satisfactorily proved the value of what are called dwarf trees. Some of them are twelve and thirteen feet high, as tall probably as pear trees need be for home use. They were planted seven years ago, and are bearing

profusely, giving us many bushels of pears of the finest quality. Our varieties are chiefly Duchesse d'Angouleme, Louise Bonne de Jersey, Onondaga, Howell, Flemish Beauty, Seckle, Bartlett, Vicar of Winkfield, Buffum. Except the Seckel, (which is on pear stock,) the rest are on quince, but by deeper planting have, with the exception of Duchess, all rooted on the pear, making firm and thrifty standard trees. The circumference of quince roots is very small, and not sufficient to hold the tree in its place after growing a few years. But for early growth, they take a quick hold of the ground, and throw the tree into almost immediate bearing, satisfying those who are unable to wait the natural period of growth and fruiting of standard trees.

For private grounds, we therefore unhesitatingly recommend the planting of the pear or quince; and even for permanent orcharding for market, they should be alternated with the others. In planting, of course, the point of union between pear and quince should be covered a couple of inches, to allow the pear to root, and to circumvent the borer on the quince.

With us the ground is not in grass, but cultivated annually with root crops.—Exchange.

WILL IT DO TO SET SMALL FRUITS AMONG STANDARD FRUIT TREES.—Once for all, NO. Very many, anxious to economize their land, wish to grow strawberries on their land, while their trees are growing upward to bearing age. We only repeat what we have often said before, such a course will be either a sure loss to the trees, or a preventive of their successful growth. No crop exhausts the soil more, and the trees have no odds against the soil doubly full of myriads of little rootlets, sucking the life and food away from it. Blackberries are less exhausting than strawberries; currants appear to have very little injurious effect, as their shade helps the soil to retain moisture sufficient for both. In general, no plant should be allowed to grow within three to four feet of a fruit tree, and when in bearing the trees will thrive best if they occupy the soil exclusively.—Horticulturist.

[So say we.—ED. S. P. & F.]

Successful farming is made up by attention to little things. The farmer who is the most successful earns his money with the best result. Such men are the "salt of the earth."

THE VINEYARD.

Grape Culture at Vineland.

The name of Vineland is very fitting, for it is truly a land of vines, and the superior quality of the grapes grown here give them a good name in the market, so that grape culture is now one of the leading branches. Concords are the standard variety; they seem to adapt themselves best to the soil, and suit the market well. hundred acres of vineyard, and nearly as many of peach orchards are now planted. There are many different systems for planting and training a vineyard, one common way is in hills eight feet each way, and tie up to stakes; others train on cheap trellises, while some use wire. A well cultivated vineyard will produce a few grapes the second year from setting, and the third from ten to twenty pounds to the vine. In one vineyard thirty vines produced a thousand pounds; in another I was shown four rows from which \$208 worth of fruit had been sold, and from five rows 375 gallons of wine had been The grape harvest is a rich one both for pleasure and profit. The past week has been a favorable one for harvesting, and the heavy crop makes a brisk business, while the demand for boxes can hardly be supplied. Nineteen tons of grapes were shipped from New York from one depot on one day last week. The Vineland Independent says thirty-eight tons of grapes were sent over the Vineland railroad on Monday and Tuesday of last week. The above with the amount carried over the West Jersey road, will give nearly twenty tons daily for Vineland. The price here for Concord grapes from five to seven cents per pound; principal markets are New York and Philadelphia.

While grape growing is a success here, the pear seems to grow in perfection; thousands of trees now in bearing are remarkably vigorous, producing pears which weigh from one pound to twenty-one ounces.—Cor. Maine Farmer.

Sowing the Vine on the Vine.

Mr. Dominic Perone was very anxious to reduce his own extensive vineyard to one single and particular kind of grape. To destroy all the old vines at once, and replace new ones, he thought was a plan, which, besides requiring an extraordinary outlay, would be against the tender feelings of an agriculturist, who naturally cannot but with great repugnance bear the idea of destroying those plants, which for years have proved beneficial. To engraft all the vines anew

would be a matter of doubtful success, and besides would deprive the proprietor of an almost certain income for many years to come. In the midst of such perplexities an idea occurred to the mind of Mr. Perone, and this was sowing the vine on the vine. Such an expression, on account of novelty, is, at first sight, almost incomprehensible, but it becomes intelligible as soon as the reader gets acquainted with the method adopted by Mr. Perone, which is as follows: He at first picks up with great care and discrimination some grapes perfectly ripe of that very kind which he wishes to introduce into his vineyard, and keeps them in a dry place. When in spring by making a small cut in the vine it bleeds, and the sap oozes out, he makes a small hole in the lower part of the main stock with a gimlet, and introduces into it a seed of the grapes preserved. This is what he calls "sowing." That seed (which has been kept alive for months by the moisture contained in the berry) being immersed in a liquid homogeneous and connatural now germinates, and the sap hardened by the contact of the air envelopes the small root of the new little plant, which identifies itself with the main stock; and grows up with the other branches. Meanwhile the mother vine continues to bear fruit. After two years the new offshoot is pruned. The third year it bears grapes. Then the old vine is cut above the newly sown plant, and thus the change or renovation is perfectly operated.—Translation in the California Farmer.

THE GRAPE CROP.—The yield of grapes this year is very large, and the quality of the crop is much better than usual. This market at present is filled with the choicest varieties, and the prices at which they sell are very reasonable. Beside the domestic grapes, there are at present offered various foreign varieties, which are very plentiful and cheap. It has lately been found more profitable to cultivate these foreign varieties for the table, leaving the domestic grapes for the vintage. Although the grape yield is much larger this year than ever before, by reason of the larger number of vines in bearing and the excellence of the season, the market prices are well maintained, there being a large demand for the surplus for wine making. The vintners are contracting for grapes at a cent per pound, at which rate the cultivation of grapes is far more profitable than the growing of cereals. As the Eastern and foreign demand for California wines is steadily increasing, the amount made this year promises to be much in excess of former years.—New York Bulletin.

Grape growers should subscribe to the So. Planter and Farmer.

VEGETABLE GARDEN.

Carrot Culture.

In answer to your correspondent's inquiry, allow me to say that unless he has manure entirely free from seed he should manure his land in the fall, and heavily; plow deep, smooth the land, and sow the seed at early corn planting time. If he has no suitable markers, take an ax and augur, go to the woods, get a pole suitable, bore holes for legs two feet apart; cut some poles for thills, leaving a limb on each for a hold-back; put in the pole three or four legs for markers, each two feet long; insert the thills and two sticks for handles, hitch on the horse, put a boy on, if he has one (and he ought to), and drive on, marking out the land. Have the seed in a small pail, which hold in one hand and sow with the other. Choose a time to sow the seed when there is no wind. To cover, take the hoe with the edge up; start backwards on the row; give the dirt a rake at the side of the row to cover the seed; cover about one inch. When the entire patch is sown, roll level.

On sod ground there will be but little weeding to do. Tend them well; thin if necessary. The common long yellow carrot I find the best. One pound of seed will sow an acre. By the mode described I can sow and cover an acre in one day. I raise my own seed. I pick the seed-heads and keep them without shelling. The seed will keep well two years, and I presume longer. When the carrots are to be dug, plow a deep furrow close to the row, and they can be pushed or pulled out easily.

There is more money in a patch of carrots for horses and cows than in any other crop.—Cor. Rural New Yorker.

Speedy Growth of Radishes.—In the publications of the Acclimatization Society of Palermo, we are informed that radishes may be obtained at any season, and very quickly, in the following manner: They will begin to germinate in about twenty-four hours, and are then to be set in a box filled with well-manured earth, and moistened from time to time with lukewarm water. In five or six days the radishes will attain the size of a small onion. To grow radishes in winter, the box is to be placed in a warm cellar, covered with a top, and the earth moistened from day to day with lukewarm water.—

Agl. Report for October.

THE TROPHY TOMATO.—Much enthusiasm was elicited in the former part of the fruiting season by the growers of the "Trophy,"

and some cestatic remarks have been freely quoted by the press. We found recently, on a trip to Delaware and Maryland, and in the neighborhood of Philadelphia, that, after trial, the New York Early Improved Smooth Red is preferred to the Trophy for a market crop. The Trophy, in the southern portion of the Middle States, does not seem to bear as large a crop as on the heavy soils farther North. Likewise, it has been found to grow rough and more rugged in outline each year, comparatively few specimens being entirely smooth. Gardeners say that they can get more baskets to the acre of the Smooth Red than the Trophy, although all admit the latter is equal to all representations as to flavor and solidity.—Horticulturist.

ASPARAGUS.—The Germantown Telegraph says: "We repeat our doubts that there is more than one kind of Asparagus. The more we hear of the cultivation of the mammoth—a size that we do not covet—the more clear does it appear that it is the result of selecting the strong single roots for planting to begin with, and then plant them in trenches six to eight inches deep, well plied with manure at the sides of the row, and, as the manured spires grow, fill in the soil, etc. At least, this is one way of getting the very largest we ever saw."

FLOWER GARDEN.

Flowers in the Winter.

Now that the frost has deprived us of our out door bloom, and we can expect nothing more from the flower garden until the Crocusses and Jonquils announce the arrival of spring, our lady readers will sadly miss their daily task, or rather recreation, of filling the vases and baskets with flowers. Still we are not forced to do without them entirely. To a certain extent, if not in such profusion, their places may be supplied by in-door bloom, even where there is no conservatory. Many beautiful plants may be grown in the drawing-room window, and a constant bloom can be kept up, making cheerful many a "dark and dreary" day.

Geraniums, flowering and sweet scented; Fuschias, Heliotropes, Stevias, Verbenas, Begonias, Hyacinths, and many others, are well adapted to this purpose, and will abundantly repay the little care they require.

In our crowded cities where conservatories are impossible, winter blooming plants should be deemed an indispensable ornament to the drawing-room, and we hope soon to seem them in every window.—ED. New Bules.—Our seedsmen and nurserymen have got their importations of flowering bulbs from north Europe, consisting of Crocus, Hyacinth, Tulip, Narcissus, Snowdrops, Lily, Crown Imperial, &c., besides all the choice species for growing in glasshouses. We have received the catalogues of our leading dealers in this country and Europe, from all of which, we learn that last summer was very favorable for the maturing of the bulbs, and that large numbers of new and superior varieties of every species are sent out this year for the first time, and as many of the old inferior varieties have been discarded. Purchasers, we think, may rely upon getting sound bulbs and choice varieties.

Among the wonders in the bulb culture, are the Golden Lily of Japan (Lilium auratum), I have seen it in its full prime the past two summers in Dreer's collections. Many of the bulbs bore six blooms, nine inches in diameter and very fragrant. Thomas J. Mackenzie, exotic florist of Philadelphia, has the Lilium tigrinum flore pleno or the double tiger-lily, of large size and splendid appearance. Louis Van Houtte, of Ghent, acquaints us of the new lily, Lilium tigrinum splendens Leopoldii, which has produced a great excitement in Europe by the great size and dazzling colors and superb markings of the blooms. His new varieties of Amaryllis are most splendid and have won many prizes in Europe the past two years.—Gardeners Monthly.

Watering Plants with Hot Water.—It has lately been shown by careful experiment, that sickly potted plants, even some that have almost died out, can be greatly benefitted, and sometimes, indeed, entirely restored to vigor, by applying warm water to them instead of cold. In certain cases, Oleanders which had never bloomed, or did so only imperfectly, after being treated with luke-warm water, increasing the temperature gradually from 140° up to 170° F., produced the most magnificent luxuriance of bloom. Similar results occurred with an old plant of Hoya; and also with an India rubber tree which had nearly withered away. In all these cases the application of water heated to about 110° F., without any other precaution, caused a new and flourishing growth.—Cal. Farmer.

WORK FOR DECEMBER.—In the Flower Garden, this month, the work is confined to cleaning off the rubbish and mulching the beds heavily with manure, to be spaded in next spring. Plants in greenhouses, pits and rooms, will need but little save a regular supply of water, and as much fresh air as the weather will permit.—ED.

Poulty Department.

The Poultry Show

At the State Agricultural Fair, last month, was the grandest ever witnessed in Virginia. Most of the fashionable breeds were well represented by fanciers; and some of the coops were almost perfect.

It is gratifying to observe the steadily increasing interest manifested in the cultivation of poultry, for under proper management, no portion of the farmer's stock will yield a larger income on the outlay. But to be entirely successful, organization is necessary, and shows must be held at earlier or later periods than November, as young birds only are fit for exhibition in that month, because of the moulting of old ones.

Of the Asiatic breeds on exhibition, were several coops of Cochins, all very fine. The premium trio were descendants of the celebrated Taylor strain owned by G. H. LEAVITT, and were as perfect in form and feather, as could be desired. The trio weighed 33 pounds and were not fat.

The successful Light Brahmas were splendid birds—very large for their age—compactly built, full of life, and fully up to the standard of excellence, in every respect.

The premium Dark Brahmas were well marked and very handsome. The cock was indeed a picture of perfection, and of enormous size for his age. His delicate tripple comb, silvery neck and back hackle, with black breast and thighs, small head, prominent eyes, well-feathered toes and legs, and proud carriage, gave him a very commanding appearance. The pullets with him, were equally well marked in every respect, and to a judge, were appreciated, but were two young to show with their male companion.

The show of Games was a grand one—the best we have ever seen at any exhibition. Most of the Cockerels were black or brown breasted Reds and Muffs, Irish Greys and Reds, Dominiques and Stonefence—and all were so well formed, so compact, so beautifully feathered, and so full of life and health, and spirit, that the judges must have found much difficulty in deciding as to which trio was the best.

Of the French strains, there were but two trios exhibited, Houdans; but these were exceedingly fine, and are very highly prized by their owner, for their fine table qualities, as well as for their number of eggs at all seasons of the year. In this section the Houdans have thus far

proved hardier than Games, or any of the Asiatic Strains, and when better known, will be more sought for.

Of White Leghorns there were two good trios, but not equal to some shown by the same exhibitor last year. As layers these birds stand very high, but only second rate for the table.

The White Face Black Spanish had first class representatives in the show. Tegetmeier rates them at one for layers, but third for table and hardihood.

Two coops of Grey Dorkings were exhibited—neither very good. In England, the Dorking for many years, was the fowl of that country, and still stands high in John Bull's estimation. In this country, however, they rarely succeed well, being subject to a foot disease that seems to be incurable. They are rated by Tegetmeier as one for the table, two as layers, and three for hardihood.

Two coops of Silver Spangled Hamburgs—one from Maryland, and one from this section—were exhibited. Both were handsome, but neither perfect. Hamburgs are rated as one for layers, three for the table and two for hardihood.

Of Bantams, the show was large, but the birds inferior. Some of the Silver Seabrights were good, but as eight or ten birds were crowded into one coop, the judges had no opportunity of passing upon the merits of the best.

A number of Turkey pens were filled, some of them with superior specimens. A pair of bronze, from Maryland, were said to weigh seventy-five pounds.

The display of Geese was not as good as that of the previous year. The Hong Kong and common varieties were good; and the three Poland *Ganders* very fine. A pair of Chinese Swan, real beauties, and a pair of Wild Geese, were very attractive.

Of Ducks, there were Rouen—only a small specimen—Aylesberry, very good; Muscovy, superb; Bay Ducks very fine, and commons, white and grey, equal to any we ever saw.

Two or three coops of Guineas, three coops of fancy Pigeons, and three pens of Rabbits, made the Poultry Department of the Agricultural Fair highly interesting to thousands of visitors, who spent hours each day in examining, comparing and praising the zeal and judgment of those fanciers who had contributed so much for their study and admiration.

In concluding this hasty notice, we trust we shall be pardoned for suggesting to the Executive Committee of the Agricultural Society, the propriety of increasing the accommodations for Poultry, and of building new and more appropriate exhibition coops. In the present

pens, Poultry cannot be seen to advantage. If the coops were two and a half feet square and the fronts wired, many more coops might be accommodated, and the Poultry could be seen by all visitors. For want of accommodation, twenty-one trios were sent home, and this too after one hundred and ten coops had been filled.

Description of Breeds.

We give in this number the description of Brahmas, as laid down in the American Standard of Excellence, that Virginia farmers may have the requisite points before them when selecting birds for future fairs. Every exhibitor should bear in mind that his fowls will be judged by this standard, and not by mere size and weight, as some suppose.

GENERAL SHAPE OF COCK.

Beak.—Very strong and curved.

Comb.—Pea, small, low in front and firm on the head, without falling over to either side, distinctly divided so as to have the appearance of three small combs joined together in the lower part and back, the largest in the middle, each part slightly and evenly serrated.

Head.—Small, slender in profile, broad.

Eye.—Prominent and bright.

Deaf Ear.—Large and pendant.

Wattles.—Small, well rounded on the lower edge.

Neck.—Long, neatly curved, slender near the head, the juncture very distinct, hackle full and abundant, flowing well on the shoulders.

Breast.—Very full, broad and round; carried well forward.

Back.—Broad, flat betwixt the shoulders, saddle feathers very abundant.

Wings.—Small; the primaries doubled well under the secondaries; the points covered by the saddle feathers.

Tail.—Small; carried not very upright, the high feathers spreading out laterally.

Tail Coverts.—Broad, very abundant, soft and curved over the tail.

Thighs.—Very large and strong; abundantly covered with very soft, fluffy feathers.

Fluff.—Abundant and soft, covering the hind parts, and standing out about the thighs, giving the bird a very broad and deep appearance behind.

Legs.—Rather strong and large, standing well apart; feathered down the outside to the end of the toes.

Toes.—Straight and strong—the outer and middle toe being feathered.

Carriage.—Very upright and strutting.

THE HEN.

Beak.—Very strong and curved.

Comb.—Pea, very small and low, placed in front of the head and having the appearance of three very small serrated combs pressed together, the largest in the middle.

Head.—Same as cock.

Deaf Ear.—Large and pendant.

Wattles.—Small, rounded on the lower edge.

Neck.—Neatly curved, slender near the head, the juncture very distinct, full and broad in the lower part, the feathers reaching well on to the shoulders.

Breast.—Very deep, round, broad and prominent.

Back.—Broad, the feathers of the neck reaching to betwixt the shoulders, and abundance of soft, broad feathers, rising to the tail.

Wings.—Small, the bow covered by the breast feathers, the primaries doubled well under the secondaries, the points of the wings tucked well into the abundance of soft feathers and fluff.

Tail.—Small, not very upright, almost buried in the soft rump feathers.

Fluff.—Very abundant and soft, standing out about the hind parts and thighs, giving the bird a very broad and deep appearance behind.

Legs.—Strong, wide apart; feathered on the outside to the toes.

Toes.—Straight and strong, the outer and middle toe being well feathered.

Carriage.—Low in comparison to the cock.

Note.—The above is given as the "general shape" of all Brahmas, designed for *exhibition*. It is not pretended that Brahmas are impure without these markings, or that they are less valuable as layers or for table use. The *standard* prescribes form, color, etc., and upon those points judges must decide.

In our next number we will give the "standard" for dark and light Brahmas.—ED.

Drinking Fountains for Poultry.

A good substitute for a running stream is a quart or two quart tin can, similar to those used for canning fruit. At the open end cut a

notch, or punch a hole; fill the cup with water, insert a plate or saucer over it, and then invert the whole affair. The saucer will remain full of water so long as there is enough in the fountain to fill it. When the water in the saucer is sufficiently reduced, the air will rush through the orifice and drive out the water, until the hole is again covered. We have used fountains of this kind for years, with entire satisfaction. The Poultry Bulletin says, they are just as good as more expensive fountains, and can be kept clean with very little labor.

Grain for Chickens.

The cheapest grain for chickens is Indian corn. It may be fed to them raw and cooked, in hominy, in scalded dough, and in bread. For a change, feed sound wheat, oats, buckwheat, boiled potatoes, and scraps from the table and kitchen. In winter, when worms and bugs are not to be had, they should have a little fresh meat once or twice every week. Raw onions, sliced, is stimulating and healthy. Leeks, chives and garlic mixed in dough are admirable tonics for young or old birds.

Raising Turkeys,

Young turkeys should be kept in a coop, without water, until eight days old. From the time of hatching until four weeks old their food should be hard boiled eggs. After that time until two months old give them stale bread soaked in milk, and occasionally a few bread crumbs. When over two months they may be fed on soaked wheat, corn meal mush and raw vegetables, with a little fresh meat, at intervals of three days. Persons who have practiced this method for years say they find no difficulty in raising turkeys.

Fattening Fowls.

Fattening geese and turkeys by cramming is not new. But there is a large establishment in France where ordinary fowls are fattened in eighteen days by that process. They buy all the fowls they can get; when four months old, they have cages divided into compartments, each holding one fowl strapped down by the feet. One man feeds two hundred in an hour. The food is liquid mixture of barley, maize and lard, beaten up with milk. The feeder, three times a day, takes the fowl by the head, inserts a tube which connects by an elastic hose with the reservoir, and touches a spring, by which a registered dose is shot into the stomach. The cages are cleansed daily.

Before killing, each fowl is confined in a dark room without food, for twenty-four hours, then enclosed in a bag leaving the head out. The neck is finally pierced with sharpened wire, which produces instant death. The usual dressing being over, each is wrapped in wet cloth to cool. These fowls are prized; they sell in market for two francs a pound—equal to forty cents; the net profit is forty-five per cent. We are indebted to Diet's Farm Journal for this information, and we commend it to the notice of our suburban farmers, because we believe raising fat poultry is profitable.

Choice of Breeds.

Some of our readers may be ready to ask: What particular breed do you consider the best? In answer we will say, that will depend altogether upon the requirements you wish to impose upon them, and subjoined we give you a classification of fowls which will explain itself and speak more voluminously than could these remarks if extended to a column or two:

CLASSIFICATION AFTER TEGETMEIER.

	Layers	For Table	Hardihood	Activity	Size of Body.	Size of Eggs.	Setters	Non-Setters.	Summary
Houdans	1	1	1	2	2	1	0	1	9
Leghorns	1	$\frac{2}{2}$	$\frac{1}{2}$	1 3	2	2	0	1	10
Creve Cœur	1		$\frac{2}{2}$		1	1	0	1	11
Games	1	2		1	2	2	1	0	11
Brahmas	2	2	1	3	1	2	1	0	12
Cochins	2	2	2	3	1	2	1	0	12
Dorkings	2	1	3	2	1	2	1	0	12
Malays	2	2	2	2	1	2	0	1	12
La Fleche	2	1	3	3	2	1	0	1	13
Spanish	1	3	3	2	2	1	0	1	13
Polish	1	3	3	2	2	2	0	1	14
Hamburgs	1	3	2	1	3	3	0	1	14
Bantams	2	2	2	1	3	3	1	0	14

1 Superior. 2 Medium. 3 Inferior.

Influence of the Male in Poultry Breeding.

It is still an unsettled question as to the length of time it is necessary to keep a hen after a cock has been changed, before the eggs can be set with the certainty of getting chicks sired by the new cock. The Massachusetts Ploughman tells a remarkable story on this subject, appearing to think it well authenticated. The story is to the

effect that a hen, escaping from a wagon, found its way to a hut miles from any other house or fowls, and there laid eggs, set upon them, and hatched thirteen chicks.

Col. Hassard, a well known poultry fancier in Canada, states that he once had a black Spanish hen hatch five chickens from eggs laid after the death of the cock.

We have seen statements to the effect that a permanent influence resulted from copulation in the case of fowls, and that absolute purity of blood could not be depended upon, if the hen, at any time, had run with a cock of a different breed.

On the other hand, it is a common impression that impregnation takes place but a short time before the egg is laid.

The Massachusetts Ploughman says a French breeder, to whom the French government assigned this question for experiment, was obliged to confess that at the end of a year he had learned nothing definite.—Buffalo Live Stock Journal.

USE OF SULPHUR IN NESTS.—The powdered sulphur sold by all druggists is a cheap and handy preventive of parasites upon young chickens. After a hen has been sitting till well established, sprinkle a small handful upon her eggs when she is off, and upon every part of the nest, and a little distance all around it. Then when she is on, disturb her just enough to make her bristle her feathers, and then dust another handful down to the skin upon her head, neck, and every part of the body not in contact with the nest, and do not omit to scatter a pinch under each wing. Then when the chickens are hatched there will be no vermin whatever to leave the hen and gather upon the young, as is frequently the case when no precautions are taken. One thorough application such as we have described will suffice.—Rural Home.

CURE FOR GAPES.—Sulphate of iron, dissolved in water, is said to be a sure remedy for gapes. A writer in the Rural World says: Dissolve copperas in water, then mix corn meal with the water, and feed the chickens with the dough. Iron is an excellent tonic, and death to the worms that cause the gapes.—Ed.

Cleanse your heneries by whitewash and disinfectants, and thus exterminate vermin preparatory to spring hatching. Cleanliness and sound feed are essential to success.—ED.

Beg Department.

Is Keeping Bees Profitable?

Shall Virginians undertake to compete with the astonishing profits realized from keeping bees in the Northwest? I argue that we should and can, as the following comparative results go to prove:

1st. I quote the results obtained in Wisconsin from one of three of Mr. Adam Grimm's apiaries. This one was managed by a young lady, his daughter, Miss Katie Grimm, near Jefferson, Wisconsin, who, from 139 swarms, of which 20 had been doubled, secured the following yield of honey in twenty days, by the use of the honey extractor:

July 5th, 1871, she extracted her first half barrel, 185 pounds; 8th and 9th, $1\frac{1}{2}$; 14th, $1\frac{1}{2}$; 16th, $2\frac{1}{2}$; 17th, 2; 19th and 20th, 1; 25th, 1. Total, 10 barrels of 370 pounds each—3,700 pounds.

Three thousand seven hundred pounds extracted in twenty days in July from 139 hives, with considerable more to come off in the shape of surplus honey boxes. This quantity, at 25 cents per pound, yielded \$925 for twenty days' labor of one young lady. Are not such results sufficient to arouse us to action? Why not try to do all we can to secure the thousands of barrels of honey produced by the flowers and clover of Virginia that now dries up or is washed out and away by the rains? The honey season commences more than a month earlier and continues nearly two months later in Virginia than in Wisconsin, as may be seen from the following extracts from my bee diary:

"March 21st, 1871, peach trees are now in full bloom; they commenced to bloom March 14th."

"The storing of honey in the latitude of Richmond, Va., ceased to be continuously increased October 25, 1871, although the bees gathered more or less honey until November 13th, when ice stopped short the honey yield."

2d. To prove that Virginia may compete in producing honey with the Northwest, I append a continuance of the report of one swarm, (No. 38) not the best in my apiary, that has been standing on scales since August 31st. In the November number of the *Planter and Farmer* I reported the variations in weight of said hive up to October. It stood then 85 pounds gross weight—a gain of 36½ pounds since September 22d.

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The subsequent variations were	re as follows:
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Date.	Weight.	Gain.	Date.	Weight.
October 11	86½ 85 87 93 92 94 95 96	$1\frac{1}{2}$ $\frac{1}{2}$ 6 1 1 1 1 1	October 26	$\begin{array}{c} 97\frac{1}{2} \\ 97\frac{1}{4} \\ 96\frac{3}{4} \\ 96 \\ 95 \\ 95\frac{3}{4} \\ 94\frac{1}{2} \\ 94\frac{3}{4} \\ 95\frac{1}{4} \end{array}$
" 23 " 24 " 25	98 97 98	1	" 11 " 13 " 16	$ \begin{array}{r} 95 \\ 941 \\ 941 \\ \hline 941 \\ \end{array} $

Gain, 13 lbs. Previous gain, $36\frac{1}{4}$ pounds. Total, $49\frac{1}{4}$ pounds. On the 18th and 26th the weather was rainy.

A gain of weight from September 22d to October 22d (31 days) of $49\frac{1}{4}$ pounds to one hive!

Suppose that I had 139 swarms, as Miss Grimm had, and each gained 49½ pounds, it would have been 6,845½ pounds in 31 days, or 4,416½ pounds in 20 days against her 3,700 pounds in 20 days. But the disturbing of the bees, taking it from them, would no doubt have much decreased the amount gathered. I must here say I did not take from my bees the above amount of honey, for the early season had yielded but little honey comparatively, and I had to leave a large portion to carry them through the winter. I only mention my gain in weight of hive to prove that Virginia is capable of doing a large business in honey if it is properly looked after. I must also say I am comparatively a beginner in the art of bee keeping, and have a great deal to learn. By reading and experience I have learned much in the last two years. I commenced in 1870 with but three swarms of bees, and those I bought in old box hives, and had no place for surplus boxes.

I shall next year try to have my colonies populous and ready to take advantage of the spring and summer yield of honey, and will-also try to learn as much as I can by reading in the meantime. I hope to report a larger yield for 1872; but I should like others of our good old State to stir themselves to secure a greater yield of honey than I shall, and report success or failure through the columns of the Southern Planter and Farmer.

W. R. Polk.

Westham, Nov. 17, 1871.

BEES AND HONEY.—Great and increasing attention to bees and the production of honey, is one of the "signs of the times" at the North and West, but our people do not seem to have awakened yet to the importance of the subject. The cash value of the honey made in the United States every year, amounts to several millions of dollars, and the cost of producing it is a mere trifle. If the people of the South and Southwest would devote a little time and attention to this matter, they would be agreeably surprised at the great results from light labor and care. With the Italian bees, new and improved hives, &c., the business is reduced to perfect simplicity, and the profits are unfailing and sure. We earnestly advise our readers to give bee-keeping a reasonable and proper share of attention at once. New Orleans Home Journal.

Great Bee Fight.—Capt. Brown, of this city, recently robbed three hives, and Dr. West, a neighbor, robbed four. The bees thus deprived of the fruits of their labor became furious; and uniting, making an army of seven hives, they invaded the premises of Mr. Horace Bledsoe, and made a fierce attack on five of his hives. Bledsoe's bees were taken by surprise, and although outnumbered, fought for their homes with desperation. The battle lasted seven hours, and four of Bledsoe's hives were literally destroyed. The invaders were finally repulsed, after being almost annihilated. The ground for yards around was black with dead bees. It was the bloodiest bee battle on record, and deserves to be handed down to posterity.—

Jackson (Tenn.) Whig.

A Promising Invention.—A genius by the name of Jeremiah Cory, of Holden, Missouri, has recently taken out a very novel patent. The invention consists in so combining and arranging a poultry roost with the gates of one or more beehives, that the perching of the poultry upon the roost will serve to automatically close the hives. The object is to ensure the closing of the hives at night, so as to exclude the bee moth, and the opening of the same in the morning to permit the passage of the bees in and out during the day. The genius of our people is equal to all emergencies.

NANSEMOND HONEY.—Our neighbor Roberson Arnold obtained a premium of fifteen dollars on the best hive of native bees, exhibited at the State Fair of North Carolina, held at Raleigh. He also obtained a premium on the best crate of honey on exhibition. Arnold is hard to beat on bees and honey.—Suffolk Sun.

Bairy Depantment.

Premium Butter at the State Fair.

Dr. J. A Reid, of Madison county, Va., who received the premium for the "best tub of firkin butter, not less than six months old," awarded at the late Virginia State Fair, submitted the following statement of the process of making and packing:

"We cool the milk as soon as possible after it is milked; a small portion of ice around the pans cools it very soon. The milk is allowed to stand about 24 hours before it is skimmed, and, if properly cooled when first milked, it will not thicken nor sour in that time in scarcely any weather in a well ventilated dairy. We use care in skimming to take only the cream—the less milk with the cream the better. The cream is kept in good stone jars, and churned as soon as it begins We use the barrel churn and pan, fifty to sixty revolutions per minute, with a steady even stroke; it takes from thirty-five to forty-five minutes to make the butter come. As soon as the granules begin to form, if they are soft or of a whitish, creamy appearance, as they will be if the cream is too warm, we cool down with ice until they acquire a proper consistency. As soon as the churning is finished we draw off the buttermilk and press the whey all out of the butter with the paddle; it is then salted at the rate of one ounce of salt to one pound of butter, which is well worked in the butter. It is then set aside for six or eight hours for the salt to dissolve and the butter to cool when it is thoroughly worked and pressed to get the whey all out of it, and packed down at once in stone jars, using the paddle and packer all the time and never touching it with the hand. An ounce of salt is none too much, as a large portion of it is carried off with the whey in the last working of the butter. As soon as the jar is filled a thick coat of salt is put over the top of it, then a piece of paper greased by dipping it in melted suet, a cup of butter is placed over the top of that, then another fold of paper, and all secured by tying a thick cotton cloth over the mouth of the jar. Butter managed in this way will keep from May until the next Spring perfectly sweet."

ATTENTION TO BUTTER.—Are our friends aware what the difference is between bad and good butter in price? Consult any table of markets, and it will be found to be more than half. It is a third in what is considered fair or good butter. When prime butter is thirty cents,

good will bring twenty to twenty-five cents—such as is made generally by our farmers. The same milk makes the same amount of butter. It is then in the making where this difference lies. Now will we not take a little more care? By it we gain a third; and during the year what does that amount to? An important sum where but few cows are kept, and something where but one cow is kept, say from ten to fifteen dollars.

MILK PRODUCERS UNION.—It is said that the Orange county (New York) milk producers have formed a protective union. The plan is simply for each neighborhood to combine and build a creamery, where, when milk is flush and there is a prospect of the market being overstocked, each one can send a portion of his milk to be made into cheese or butter, shipping just enough to the New York dealers to keep the price up to a point that will give producers a reasonable compensation for labor and capital invested. This is another step towards a complete co-operation among farmers.

A NEW METHOD OF PACKING BUTTER.—A Michigan dairyman has lately published his mothod of packing butter. He has oaken tubs, with heads at each end. They are 14 inches in diameter at top, 9 inches at the bottom, and 16 inches high. In packing, a cambric The butter is packed in the tub as it bag is made to fit the tub. stands on the small end—the sack being long enough to extend above the edges of the tub-and is pressed down firmly until within an inch and a half of the top, when a circular cloth is laid over it, the edges of the sack turned down over that, and a layer of fine salt placed on it. The head is now put in its place, the tub turned up and the butter in the sack, of course, falling down to the bottom, leaves a space all around it which is filled with brine poured through a hole in the small end. When full, the hole is corked up tight. The butter floats in the brine and is effectually preserved from the air, and will keep for an almost indefinite period.

MILK STATISTICS.—Sixteen quarts of pure milk are required to make one pound of butter, and ten quarts to make one pound of cheese. When butter is forty cents per pound and cheese eleven cents, one pound of butter equals in value sixteen quarts of milk and returns two and one-half cents per quart to the dairyman. But one pound of cheese from ten quarts of milk only gives him one and one eleventh cents per quart for the milk.

Yousehold Department.

The Art of Making a Loaf of Cake.

Begin by getting in readiness all the utensils and ingredients to be used. See that the oven is at a proper temperature. Rich cake requires a slow even oven; plain cake a quicker heat. Never add fuel while the cake is baking. Line the tins to be used with buttered paper. The fruit should be prepared, the flour sifted and measured, sugar, butter and milk also apportioned out, the eggs laid in cold water to make them beat light. Never mix sweet and sour milk.

Dissolve soda in a little water and strain; cream of tartar or baking powder must be sifted in with the flour. Sift spices through a fine hair sieve, and strain the yolks of the eggs.

The order of mixing the ingredients is as follows:

Put into an earthen dish the required amount of butter; stir with a wooden spoon until soft; then add the sugar, stirring until a fine cream is formed, next add the yolks of the eggs, then a little of the flour, and very gradually the milk, stirring the batter all the time, then the flavoring and spices, lastly the whites beaten to a stiff froth alternately with the remainder of the flour; now beat the batter until the ingredients are thoroughly incorporated; this will insure light, fine grain cake. The best way to put in the fruit, after dredging them with flour, is in alternate layers with the sponge as you put it in the pan.

Put the cake immediately in the oven, and watch carefully; so much depends upon the baking. Avoid a draft of cold air while opening the oven. If the heat or fire is too great cover the cake for a while with a piece of brown paper. Try with a broom splinter; if it comes out quite free from any particles of batter, the cake is done. If desirable to remove the cake at once from the pans, transfer it to the top of a sieve until quite cold. The cake keeps much fresher, however, to remain in the pans. Cake must not be frosted until quite cold. A stone jar and a clean piece of linen will keep cake fresh a long time.

Stale cake may be steamed and eaten with hot sauce, which makes an excellent pudding.—Household.

Original Receipts.

Mr. Editor,—I send you the following receipts, which are equally suited to the times and seasons:

M. B. K.

COFFEE SWEET CAKE.—Four eggs, 2 cups brown sugar, 3 cups of flour, half cup of butter, 1 cup raisins, stoned and floured, 1 cup of currants, 1 teaspoonful nutmeg and mace, 1 cup strong, cold coffee, 1 teaspoonful soda, 2 teaspoonsful cream tartar. Beat the eggs and sugar together, add the flour, butter (melted) and coffee alternately; then stir in the fruit, and lastly the soda and acid dissolved in coffee. Bake quickly. The above receipt is both excellent and economical.

PLUM PUDDING.—Six $\frac{1}{2}$ eggs, 6 cups flour, $1\frac{1}{2}$ cups butter, $\frac{1}{2}$ lb. raisins, 1 teaspoonful soda. Make into a batter with buttermilk, and boil in a flannel bag, well floured, three hours.

Selected Receipts.

APPLE PUDDING.—Peel 6 good cooking apples, take out the core with the point of a small knife, but be sure to leave the apple whole; fill up the place where the core was taken from with sugar, place them in a pie pan and pour over them a nice light batter, such as prepared for pancakes or pudding: then bake them an hour in a moderate oven. Then prepare a dip of the following ingredients: Rub a lump of sugar on the outside of a lemon and put it into a pint of good, sweet cream; then if not sweet enough add more sugar. This pudding is good enough for anybody.

FRIED BREAD.—Put into a common biscuit pan a heaping teaspoonful of butter, and let it melt and spread over the pan; then take enough slices of bread (stale answers as well as any) to cover the bottom of the pan, and make a mixture to dip them in by beating well two eggs, and pouring in milk enough to sour the bread; season it with a very little pepper and salt; make the bread quite moist; then lay it on the butter and fry brown one side, and if too soft to turn, put them into the oven to brown on the top.—Southern Cultivator.

Hog's Head Cheese.—Put a hog's head in salt and water for two days, then wash and scrape it clean, and boil until all the bones come out. Take it up, pick all the bones out and chop it fine; season it with sage, pepper, salt, and a little cayenne, with a small spoonful of spice. Put it in a cloth or a tin pan, cover it, and put heavy weights on to press it. When cold, take it out of the mould and cover it with vinegar. Cut in slices for the table as cold souse, or beat it up and fry it, with or without butter.—Ib.

THE SOUTHERN PLANTER AND FARMER

RICHMOND, VIRGINIA,

NOVEMBER, 1871.

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Editorial Department.

Milk Trade-New Enterprise.

A movement has been inaugurated in Augusta county to supply the Richmond market with large quantities of the rich milk produced in that county. A meeting of cirizens interested in the scheme was held in Staunton, October 18th, at which it was ascertained that two thousand gallons daily, would soon be offered for sale.

After a free comparison of views, it was decided to obtain definite and positive assurances from the Chesapeake and Ohio Railroad Company as to the cost of transportation and the accommodations which can be relied on in furtherance of this enterprise. We are informed that a lively, general interest was manifested in this new subject on the part of many of the most substantial men along the line of the railroad. The opinion was confidently expressed that if the people of Richmond will favor the enterprise it will open a new and profitable business.

Massachusetts Board of Agriculture.

In Massachusetts they have an official State Board of Agriculture," to which the officers of Farmers' Clubs in the State are required by law to make a report of their organization, etc., in November, as "a condition which entitles them to the reports of the Board for distribution among the members of such clubs. The reports are issued somewhat in proportion to the number of members." The Board were to hold a meeting November 21st, at Fall river. Farmers and all others interested in agriculture were invited to attend. The programme included lectures and discussions, in which all were invited to participate. We "make a note" of this meeting to let our Virginia readers see what is officially done in other States for the promotion of the interests of agriculture.

The "Ham Question" Settled.

There were several competitors for the premium offered by the State Agri-

cultural Society for the "best bacon ham, cured by exhibitor, with written statement of process of curing and cooking." The premium was awarded to Mr. S. W. Ficklin, of Albemarle county, who submitted the following statement:

"For each hundred pounds of hams ten pounds salt, two ounces saltpetre, two pounds brown sugar, and one ounce red pepper, and from four to four and a half gallons of water, or just enough to cover the hams after being packed in a water-tight vessel (or enough salt to make a brine to float a fresh egg high enough, or out of the water). From five to six weeks in brine, hang up, smoke, and then put in papers and bagged with the hock turned down, and hung till wanted. Boil till well done."

Apropos to the above, we copy from the Southern Cultivator, the following receipt for preserving hams, contributed by Mr. James P. Apperson, of Lancaster, Texas:

"Take good strong domestic, make sacks large enough to contain hams and put them in the sacks; pack sweet well cured hay firmly around the hams, (I think prairie hay or some fine grass preferable,) and they will keep five years. The same sacks will last for several years. Insects will not infest them; while the hay will impart a nice flavor to the hams."

The Enquirer's Pun-ish-ment.

Our friends of the Richmond *Enquirer* recently favored us with the following first class notice:

"Mr. Jno. W. Rison, the Druggist, has become the proprietor of the Southern Planter. The pharmaceutist will now be expected to become the cutest farmer. Probably in the next number of the Planter he will tell us what he knows about farming. We would like to have his views upon plaster, especially in its application to corn; also an essay on the uses of easter oil in agriculture, by which the labor of plowing and hoeing may be dispensed with, the castor oil being expected to work the land. We sincerely wish Mr. Rison success in his new enterprise, and as we know him to be excellent at retort we make no apology for this badinage; in fact, it is so bad an age that we are ashamed of it. How is that for Risin?"

As the editor of the Enquirer is all-South, we have not Ben-net-tled by his badinage. On the contrary, we enjoyed it hugely. Such an effervesence of wit should im-mortar-lize the writer. To use a common expression slightly refined, "He can take our castor." The request of the writer for our "views upon plaster," though wheat-tily couched, den oats that he is troubled with a t-rye-ing corn. We are sorry for him.

A REQUEST.—Our correspondents are earnestly requested to send in their contributions in the early part of each month. The publication of this issue has been somewhat retarded by the late reception of articles intended for publication.

Pigs in the Garden.—A lady correspondent of the Planter, asks us to insert the following request for information: "Why does a farmer always get mad, if you ask him to keep the pigs out of the garden?"

New Publications Received,

THE WESTMINSTER REVIEW.—Leonard Scott Publishing Co.—Contents of October No.: 1. The Pilgrim Fathers; 2. Greek Democracy; 3. Faraday; 4. Geoffrey Chaucer; 5. Bearings of Modern Science on Art; 6. The Authorship of Junius; 7. The Bartists; 8. Gotthold Ephraim Lessing. Contemporary Literature, Theology and Philosophy, Politics, Sciology, Voyages and Travels, Science, History and Biography, Belles Lettres.

THE BRITISH QUARTERLY REVIEW.—Leonard Scott Publishing Co.—Contents of No. CVIII, for Oct. 1871. 1. Dr. Carl Ullmann; 2. Aerial Voyages; 3. Early Sufferings of the Free Church of Scotland; 4. The Romance of the Rose; 5. Letters and Letter Writing; 6. Wesley and Wesleyanism; 7. Mr. Darwin on the Origin of Man; 8. The Lesson. Contemporary Literature, History, Biography and Travels, Poetry, Fiction and Belles Lettres, Theology, Sermons.

THE SOUTHERN MAGAZINE, Nov. 1871.—Murdock Browne & Hill, 166 Balt. St. Baltimore. 1. Spider Webb Papers; 2. A Dream of Eld; 3. On the Abuse of Books; 4. Sovereignty in the United States; 5. Lord Kilgobbin; 7. La Roche Percee; 8. The Amber Necklace; 9. The Rape of a Tombstone; 10. Thought in Music; 11. The City of Pestilence; 12. Microscopy of the Grain of Wheat; 13. Ghosts; 14. A Scene Not Acted; 15. The Voice of the South; 16. The Sisters of Charity; 17. A Mother's Trial; 18. "Dialec." and Slang; 19. An Adventure in the Phillippine Archipelago; 20. Reviews; 21. The Green Table.

THE GALAXY.—Dec. No. Sheldon & Co., 677 Broadway, New York. Contents: 1. Adventures of the Duchesse de Berri, Mother of the Count De Chambord; 2. Black Friday; 3. In a Hospital; 4. Weather Prognostics, by the People; 5 Capt. Horsfall's Romance; 6. The Eustace Diamonds; 7. Admiral Farragut and New Orleans; 8. Ought We to Visit Her?; 9. Basle to Domo D'Ossola; 10. Drift Wood; 11. Scientific Miscellany; 12. Current Literature; 13. The Galaxy Club Room; 14. Nebulæ.

Appleton's Journal comes weekly, and maintains its high standard.

THE PHRENOLOGICAL JOURNAL, for December, contains among other good things, Judge Daly, of New York, with a fine portrait; An Old Bone of Contention; An able Review of Mr. Beecher's Life of Christ; The Bridge of Motion, or Recent Scientific Developments; The Deserted Vilage. \$3.00 a year. A new volume begins with the next number. S. R. Wells, Publisher, 389 Broadway, New York.

CROWDED OUT.—Several editorial paragraphs, and a number of short articles selected for this number of the *Planter*, are unavoidably "crowded out."

Improper and irregular feeding, overwork in a hot sun, going too long without water, and then giving too much, are among the causes of bad digestion and general ill-health in horses.

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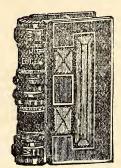
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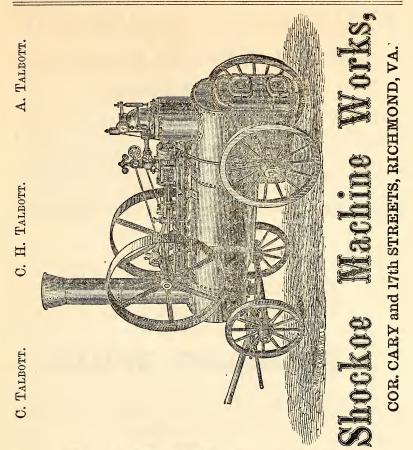
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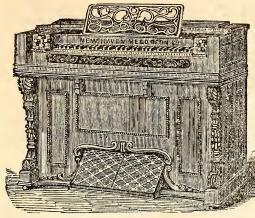
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THE TOBACCO ANTIDOTE—There are very many men in every community who admit that tobacco is injurious to them, and some go even so far as to say that it is killing them, but that they are powerless to stop 'ts use. To such we bring words of comfort when we announce that Mr. John W. Rison, of this city, one of our most enterprising, intelligent, and reliable druggists, has prepared an antidote, which he claims will destroy entirely all appetite for the weed.

oct—1y

HOMEOPATHIC MEDICINES AND BOOKS.

To meet the increasing demand for these Goods, I am prepared to supply them either in large or small quartities.

Pure Globules, Vials Cork, Sugar of Milk, Alcohol, Tinctures, for external use, Labels, Domestic Cases and Chests, at various prices. Domestic Works, &c., &c., always on hand (See List of Works below.) And, in fact, a full list of Medicines, both in pellet and liquid, are kept constantly on hand, and purchasers may be assured of their purity and reliability.

Being in regular communication with the manufacturers and publishers, any orders for goods not in stock will be promptly filled.

I have also on hand a large assortment of SURGICAL INSTRUMENTS of the best quality; also Trusses, and Abdominal Supporters.

JOHN W. RISON,

Wholesale and Retail Druggist, Proprietor of Rison's Tobacco Antidote, Richmond, Va.

TARBELL'S HOMŒOPATHY SIMPLIFIED. 12mo
FRELEIGH'S HOMEOPATHIC PRACTICE. Royal Octavo \$3 00
This is a large work, embracing the history, diagnosis and treatment of disease, including those peculiar to females, and the management of children—with a Materia Medica. (Eleventh edition.) It is suitable for a Physician, Student, or Domestic Practice.
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A small Manual, fitting into the Medicine Chest, or s itable for the pocket.

For general family use, and so arranged as to be easily understood.

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OF MY IMPORTED SPOTTED BREED.

I will sell Buck Lambs of the above breed at twenty-five dollars, and Pigs from ten to twelve weeks old at fifteen dollars per pair, or eight dollars for one, if applied for very soon. This breed has been made by crossing and selecting hardy, thrifty stock, not liable to the mange—fatten readily at any age, and are specially adapted to the wants of our people.

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dec-tf

Near Ivy Depot, Albemarle County, Va.

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I am prepared to furnish SHELL LIME in large or small quantities, at my kilns, at ten cents per bushel; or any of the depots or the Basin in this city, at the following named reduced prices, at

Per ton of 40 bushels, including bags, Per ton of 40 bushels, not including bags, 4 50

Letters addressed to me, or left at the Shoe store of Charles Phillips, No. 1322 Main street, Richmond, will receive prompt attention.

WM. SMITH.

dec-6t

1322 Main Street, Richmond.

The American Earth Closet,

A Substitute for the Water Closet.

THE CHEAPEST AND MOST PERFECT MANUFACTURED.

\$10, \$12, \$15.

No invention or discovery has contributed more to the health, comfort and convenience of civilized man than the Dry Earth System as a substitute for the detestable country privy, which, causes so much disease by reason of the malaria generated therefrom.

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Orders promptly filled C. O. D. The Closet is so constructed that it can be taken apart and packed within a very small compass,

For Sale by Mr. JNO. W. RISON, Druggist,

Corner Main and Third St., Richmond, who is our exclusive Agent for this City.

dec- AMERICAN EARTH CLOSET COMPANY.

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Instant Relief for Asthma

GUARANTEED TO RELIEVE ANY CASE OF ASTHMA IN 5 MINUTES.

I had been a confirmed asthmatic from childhood and have used everything that was recommended, seldom deriving benefit from any treatment. I was induced by a physician to manufacture this preparation after a formula given me by him, and was much surprised to experience such perfect instant relief. I have used it in many cases and with most satisfactory results, not having failed to give INSTANT RELIEF in any case. I ask for it that it may be fairly used, and have no fears of the result.

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CERTIFICATES:

LYNCHBURG, VA., July 5, 1871.

This is to certify that Mrs. Matthias has used Mitchan's Instant Relief for Asthma with very beneficial results.

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I have used MITCHAM'S INSTANT RELIEF FOR ASTHMA and found relief from its use. I think it produces expectoration, and I would recommend it to those afflicted with asthma.

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Family supplies of Pure Medicines at moderate prices, and in any quantity desired. Call and examine.

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Iron Ox Hurdle Fence, Iron Sheep Hurdle Fence, Wire Webbing for Sheep and Poultry Yards, Iron Farm Gates, Guards for Stable Divisions, Store Fronts, Factories, &c., Tree Guards,

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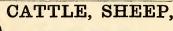
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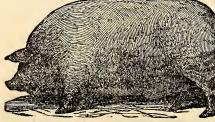


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TO ALL POINTS, NORTH, EAST AND NORTHWEST.

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[oct-3m]

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THE OLD VIRGINIA

PIEDMONT LAND ADVERTISER,

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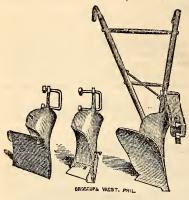
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PLOUGH. A



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- 2. BORDER AGRICULTURAL SOCIETY, Dan-
- ville, Va.—First Premium.
 3. PETERSBURG FAIR, First Premium.
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- 5. GEORGIA STATE FAIR (at Macon, First

Note.—The report of the "Dispatch," of the Ploughing Match at the State Fair, says: "It is a noteworthy fact that all of the Ploughmen (some twelve in number) came forward with a WATT PLOUGH to show his skill." And this voluntary compliment by the plowmen is the very highest testimonial ever awarded:

From the Special Correspondent at Columbia, S. C., Nov. 8th, 1871, of the Charleston Daily News.

PLOUGHING MATCH .- Across the enclosure, in an old field, a ploughing match in progress was watched with interest by a large number of persons. The entrees were as follows:

I D B. DeSaussure, of Richland, enters a pair of farm mules and double horse left hand Watt Plough against the world, Nat. Rountree, ploughman.

J. M. Crawford, Lexington, enters a double horse right hand Watt Plough.

Leroy Lewis (colored), Richland, enters a single horse Watt Plough.

N. B .- Having raised the standard and otherwise improved each of the different sizes of the Watt Plough within the past twelve months. (which don't conflict with the fitting of the mouldboards, points or slides of former ones of the same number) whereby a great saving of labor to man and team is effected, better and deeper work done, less choking than by any other plough, we would be pleased to enjoy the patronage and confidence so liberally bestowed by the farmers of this and all the Southern States, assured that our impaoved ploughs of all sizes are superior to any now in use, and if they don't prove so after one week's use, they may be returned to us.

Manufactured and sold by

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Also, Mammoth Bronze TURKEYS. Delivered to Railroad depots or Express offises at Staunton or Harrisonburg, neatly boxed at \$7 per pair or \$10 for a tio.

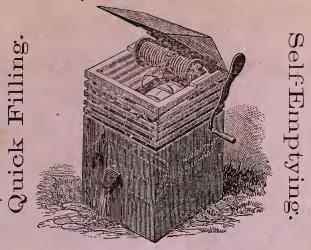
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THE BEST

IN THE MARKET.

SEVEN HUNDRED THOUSAND Made, Sold and in Use.

Sales in 1870, 127,833; 44,625 more than any other company. Sales in 1859, 86,781; increased sales for 1970, 41,052.

Sales in 1859, 86,781; increased sales for 1970, 41,052.

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